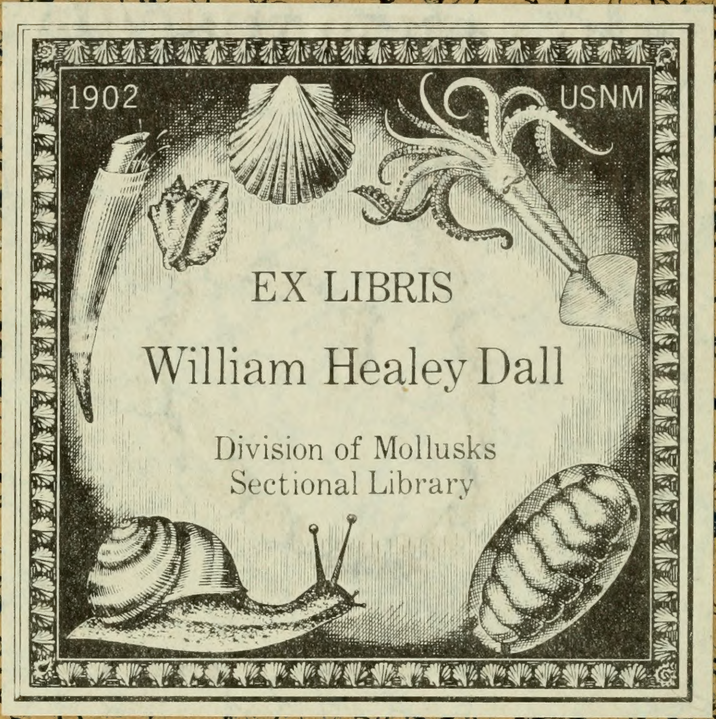

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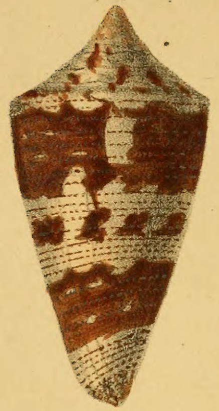

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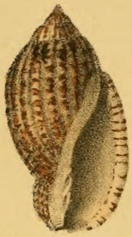

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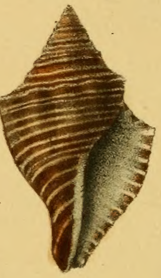

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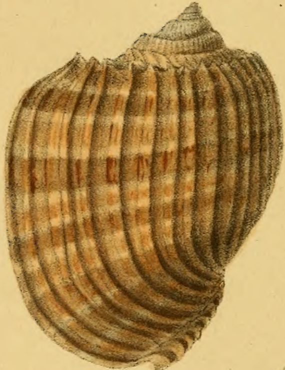

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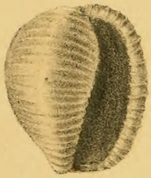

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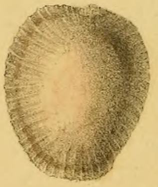

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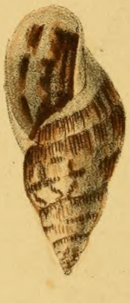

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By J. MAWE 149 Strand.

THE

LINNÆAN

SYSTEM OF CONCHOLOGY,

DESCRIBING

The Orders, Genera, and Species

OF

SHELLS,

ARRANGED INTO DIVISIONS AND FAMILIES:

WITH A VIEW TO FACILITATE

THE STUDENT'S ATTAINMENT OF THE SCIENCE.

BY

JOHN MAWE

Author of Travels in Brazil; Treatise on Diamonds and Precious Stones;
Familiar Lessons on Mineralogy and Geology;
&c. &c. &c.

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TO

THE PRESIDENT,

VICE-PRESIDENTS, AND FELLOWS

OF

THE LINNÆAN SOCIETY,

This Work

IS RESPECTFULLY DEDICATED.

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* These Shells are supposed not to be figured in any former work on Conchology.

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INTRODUCTION.

CONCHOLOGY is a science which embraces the knowledge, arrangement, and description of testaceous bodies, and which, according to the system of Linnæus, adopted in this Treatise, has for its basis the external form and character of the shell, and is totally independent of the animal enclosed within the calcareous covering.

The animal is a soft, fleshy, exsanguinous substance, without bones, but generally furnished exteriorly with a muscle, by which it adheres to the shell, occasioning certain indentations, thence called muscular impressions. Like other animals, it is endued with lungs, heart, mouth, and organs peculiarly adapted to its nature.

The inhabitants of Multivalves and Bivalves are viviparous, but of Univalves some are oviparous. It appears from the investigations of Leuwenhoeck on Bivalves, and of Reaumur on Univalves, that the animal is furnished with a shell before it leaves the parent or the egg; and as it subsequently increases in magnitude, the part which is protruded beyond the original limits of the shell becomes covered with a viscous matter, which on desiccation forms a thin and elastic substance, in addition to the previous formation, and in time, by a repetition of the process, becomes of the same thickness with the other part of the shell. From the construction of Univalves it is evident, that this juxtaposition of successive layers can only take place at the aperture, and that in Bivalves the enlargement must proceed from the hinge round the circumference of each valve.

The submarine existence of the larger portion of these animals precludes, in a great degree, the knowledge of their nature and habits, and is one of the causes that Conchology still remains obscured and confused by anomalies in many of its genera, while other branches of natural history, from being more easily investigated, are better understood.

The character which appears to have guided Linnæus in the formation of his genera, was, in Multivalves, the position of the valves; in Bivalves, the peculiarity of the hinge; and in Univalves, the exterior figure of the shell, the columella, the aperture, and form of the mouth. Hence every bivalve exhibiting an ovate hollow in the hinge is termed an Ostrea; and in the Univalves a plaited columella constitutes the distinction of the genus Voluta, and an ovate aperture, terminating in a canal inclining to the right, distinguishes the genus Buccinum. But to this arrangement it is objected, that the inhabitants of shells of the same genus ought to be identical: and on this supposition, as it appears impossible for the Ostrea malleus and Ostrea maxima to be the habitations of the same animal, they ought to be classed in different genera. Similar inconsistencies will appear from a comparison of the Voluta papalis with the Voluta turbinella, and of the Buccinum maculatum with the Buccinum patulum. How far these objections may be tenable it is not our purpose to enquire, being ourselves persuaded that the Linnæan system, though capable of considerable improvement, presents the most simple and concise method of aiding the investigation of this branch of natural history.

The striking dissimilarity of the species in some of the genera is certainly an obstacle to the attainment of the science; we have, therefore, with a view to facilitate its acquirement, and at the same time not materially to depart from the system we have adopted, formed divisions of the genera, when any marked dissimilarity was observable in the species. And if any of the divisions retained one leading character throughout, together with some other characters only partially, we have again divided it into families, distinguished by those variations. It is possible that the characters of many of the divisions will be deemed sufficiently distinct to allow of their being formed into additional genera, without departing from the original system.

We have been indebted to other writers on Conchology for the addition of many new species, and particularly to Mr. Dillwyn's valuable Catalogue of Recent Shells.

Those species which were not found described or figured in the works of any author to which we had access, are distinguished by an asterisk; we have also named them, considering them to be new species; and have endeavoured in the catalogue, to place each next in succession to that species it most nearly resembles and approximates.

The first column of the Catalogue which follows the description of the genus will, it is presumed, be found to contain a comprehensive list of all the species at present described. In the second column is placed a list of the localities, which from our connections we have been able greatly to enrich and correct. The last column contains the trivial or common names.

The plates which embellish this work are taken from specimens in our own cabinet, and we are indebted to the kindness and indefatigable exertions of an artist of the greatest talent, for the accurate and elegant delineation of them.

CLASSIFICATION.

LINNÆUS has made three principal or grand divisions of Testacea, viz. Multivalves, Bivalves, and Univalves; of which he has given the following generic description.

I. MULTIVALVES.

1. **Chiton**: Valves placed in transverse plaits down the back.
2. **Lepas**: Valves unequal; body sessile.
3. **Pholas**: Shell bivalve, with accessory valves at the hinge.

II. BIVALVES.

1. 4. **Mya**: Hinge with generally a broad thick tooth, not let into the opposite valve.
2. 5. **Solen**: Shell open at each end; hinge with a single or double subulate reflected tooth, not let into the opposite valve.
3. 6. **Tellina**: Hinge with the lateral teeth of one valve not let into the other.
4. 7. **Cardium**: Hinge with remote penetrating lateral teeth.
5. 8. **Mactra**: Hinge with a complicated triangular middle tooth, and an adjoining hollow.

6. 9. **Donax**: Hinge with a lateral tooth, generally remote, not let into the opposite valve.

7. 10. **Venus**: Hinge with generally three approximate divaricated teeth.

8. 11. **Spondylus**: Hinge with two teeth, separated by a small hollow.

9. 12. **Chama**: Hinge on one side, with an oblique obtuse tooth inserted into a corresponding cavity.

10. 13. **Arca**: Hinge with numerous penetrating teeth.

11. 14. **Ostrea**: Hinge without teeth, but an ovate hollow.

12. 15. **Anomia**: Hinge without teeth, but generally a linear depression on the rim, the beak of one valve curved over the hinge.

13. 16. **Mytilus**: Hinge without teeth, with a subulate depression.

14. 17. **Pinna**: Hinge without teeth, valves united at one end, and open at the other.

III. UNIVALVES.

1. *With a regular Spire.*

1. 18. **Argonauta**: Shell with one cell, spiral, involute.

2. 19. **Nautilus**: Shell with many chambers, communicating by a tube.

3. 20. **Conus**: Aperture effuse, longitudinal, without teeth.

4. 21. **Cypræa**: Aperture effuse, linear, longitudinal, toothed on each side.

5. 22. **Bulla**: Aperture rather contracted, and placed obliquely.

6. 23. **Voluta**: Aperture effuse, the pillar plaited.

7. 24. **Buccinum**: Aperture with a small canal leaning to the right.

8. 25. **Strombus**: Aperture with a small canal leaning to the left.

9. 26. **Murex**: Aperture with a small straight canal.

10. 27. Trochus: Aperture contracted, nearly rectangular.
11. 28. Turbo: Aperture contracted, and orbicular.
12. 29. Helix: Aperture contracted, lunate on the inner side.
30. Nerita: Aperture contracted, and semiorbicular.
31. Haliotis: Shell with a row of orifices along the surface.

2. Without a regular Spire.

32. Patella: Shell conic, the aperture widened like a basin.
33. Dentalium: Shell slender, subulate, open at both ends.
34. Serpula: Shell tubular, generally serpentine, adhering to other bodies.
35. Teredo: Shell thin, penetrating wood.
36. Sabella: Shell composed of agglutinated grains of sand.

INTRODUCTION
TO
CONCHOLOGY.

ORDER I.

Multivalves.

CHITON.—Coat of Mail.

DESCRIPTION OF PLATE I.

Div. I.—Fig. 1. C. Squamosus. *(Interior and exterior view.)*
Species Div. II.—Fig. 2. C. Marginatus. *ditto.*
Fig. 4. C. Fascicularis. *ditto.*
Div. III.—Fig. 3. C. Spinosus.

Shell consisting of several valves, arranged longitudinally on the back of the animal.

THE genus Chiton ranks first in the classification of shells, and no less than forty species are known; some of which are beautifully marked, and some of rare occurrence. From the peculiar appearance of this multivalve, it is impossible to confound it with any other genus; and it may be observed, that all the species closely approximate each other.

The Chiton, in its natural state, resembles a well known insect often met with in decayed timber, commonly called the wood-louse. Like the limpet, it is usually found adhering to rocks, and requires considerable force to detach it; it is occasionally seen rolled up in the form of a ball, among sea-weed and stones. It is common on our own coast, and is met with in France, Spain, and the Mediterranean, where it seldom exceeds an inch, but is generally much smaller, and in tropical climates it sometimes occurs three or four inches long.

When the animal is extracted, the form of the Chiton is not unlike a boat. The termination of the valves which are seldom more or less than eight, is surrounded by a scaly or rough ligament, which enables the animal to expand and contract its shell freely.

The general appearance of the exterior of the Chiton is dull. Its color is dark brown, but it passes into different shades of green; some are variegated with beautiful pink, yellowish or bluish white; others exhibit various markings, in lively colors. The interior admits of considerable variation with regard to color, but the most prevalent is bluish black or white, diversified with yellow; also brown, green, and pink. The color of the margin is sometimes yellowish brown, or olive-green, with a reddish tint, but more commonly brown, approaching black.

The margins of some of the species have very different characters, which form distinctions for three divi-

DSI

sions, viz. those having a scaly margin, as the C. squamosus, &c. constitute the first division; others having a coriaceous margin form the second division; and the third consists at present only of one species, the C. spinosus, the margin of which is beset with spines.

The Chiton derives its name from its resemblance to a coat of mail (χιτὼν).

Species ~~Division~~ I. of —*Having a scaly margin.*

Scientific Name.	*Locality.*	*Common Name.*
Squamosus	American Isles	Scaly Chiton
Bistriatus		Striated do
Fasciatus	South America	Banded do
Viridis		Green do
Tessellatus	St. Thomas's	Tessellated do
Sulcatus	South Sea Isles	Furrowed do
Maculatus	East Indies	Spotted do
Marmoratus	Florida	Marbled do
Indus	West Indies	Indian do

DIVISION II.—*Having a coriaceous margin.*

The C. porosus and C. larvæformis of this division deserve particular notice, as in some respects their characters differ from those of the other species. The valves of the C. porosus are perforated by a small slit, and the ligament of the C. larvæformis (which in other species merely surrounds the margin) almost envelops the whole shell, and gives it the appearance of a caterpillar.

Scientific Name.	*Locality.*	*Common Name.*
Fulvus	South America	Tawny Chiton
Tunicatus		Coated do
Castaneus	Cape of Good Hope	Chesnut do
Lineatus	Ditto	Striped do
Aculeatus	Nicobar Isles	Prickly do
Fascicularis	England & Barbary	Tufted do
Punctatus	Europe, Asia, & America	Punctured do
Ruber	Norway	Red do
Albus	England	White do
Cinereus	Goree	Grey do
Bicolor	India	Variegated do
Ceracinus	Surinam	Cherry do
Magellanicus	Magellan Straits	Magellan do
Fuscus	Pulo Penang	Brown do
Granulatus	West Indies	Granulated do
Piceus	Idria and Red Sea	Pitchy do
Minimus	Norway	Mealy do
Cimex		Bug-like do
Asellus		Millepede do
Gigas	African Coast	Great do
Islandicus	Iceland	Iceland do
Marginatus	French Coast	Bordered do
Lævis	England	Smooth do
Amiculatus	Kurile Islands	Kidney shaped do
Tuberculatus	West Indies	Knobbed do
Crinitus	Aberdeen	Hairy do
Thalassinus		Seagreen do
Hispidus	West Indies	Hispid do
Porosus		Porous do
Larvæformis		Caterpillar do

Division III.—*Having a spinous margin.*

The C. spinosus is at present a very rare shell; its habitat is supposed to be the Marquesas.

Spinosus		Spiny Chiton

LEPAS.—Acorn Shell or Barnacle.

DESCRIPTION OF PLATE II.

~~Div.~~ I. —*Fam.* 1. Fig. 1. L. Tintinnabulum.—4. L. Clavata.—5. L. Verruca.
Species *Fam.* 2. Fig. 3. L. Quinquevalvis.
Fam. 3. Fig. 2. L. Purpurascens.
~~Div.~~ II.—*Fam.* 1. Fig. 6. L. Mitella.—8. L. Pollicipes.
Fam. 2. Fig. 7. L. Anatifera.

Shell affixed at the base, and consisting of many unequal erect valves.

OF the genus Lepas forty-three species are known, and they are in general so well characterized that they cannot be confounded with those of any other genus.

The exterior of the shell is often varied in shape, covering, and coloring; the usual outline is conical, but in some instances, hemispherical; which form is acquired by a number of valves being placed perpendicularly on a base, broad at the lower margin, and gradually tapering towards the summit, which is closed by other smaller valves, placed nearly horizontally, thereby serving as a lid or covering to the animal within. The perpendicular valves are incapable of motion; the horizontal, on the contrary, are moveable at the will of the animal; which through their medium, performs those functions that are necessary to its existence.

The number of valves which constitute the shell is often very indefinite, their usual amount is six; but the L. palmipes has sometimes only four; and other species possess the intermediate gradations of number, as far as twenty-four, which is not unfrequent in the L. pollicipes.—The valves, of whatever number they consist, are variously diversified with striæ, ridges, and grooves. The striæ are mostly transverse; the ridges, on the contrary, are longitudinal, and not uncommonly beset with rough projections and acute spines, as in the L. spinosa.

The valves which compose the operculum, or lid, often vary in their number and shape; in some they only consist of two; in others, of three or four; and sometimes of a far greater number. They are usually attached to a ligament, and occasionally present an acute form, while in other species they are perfectly obtuse.

The color also differs considerably, though the most usual is of a bluish, purplish, or reddish cast; some are variegated with black and green, and others are greyish-white, as the L. mitella, &c.

The Lepades are never found detached, but always fixed by the base or stalk to other bodies; they adhere in clusters to rocks, and often form groups on shells, loose stones, anchors, &c.; they are also found on marine animals, as the whale and the turtle. They also affix themselves to ships, and, though at first invisible, so rapid is their increase in magnitude and number, that the velocity of a vessel is considerably impeded by them. This seems to imply that the animal exists in the sea in the state of animalcula.

The interior of some species of this genus is a hollow tube, but in others it is divided into separate compartments or chambers, as in the L. diadema, or it is filled up with tubular pores, as in the L. porosa.

The species possessing these characters form the first, second, and third families of the first division; the fourth family is distinguished by having a cup-like appendage at the base; and the fifth by the shell being tubular and truncated at both ends.

The Lepas derives its name from its custom of adhering to rocks (λέπας), and other projections in the sea.

This genus has also been called Balanus, from the resemblance which some of the species bear to an acorn (βάλανος).

Division I.—*Affixed at the base to other substances.*

~~Family 1.—*Sessile.*~~

Scientific Name.	*Locality.*	*Common Name.*
Balanus	Europe, &c.	Acorn shell, common Barnacle
Balanoides	Europe	Smooth do
Tintinnabulum	East and West Indies	Bell-shaped do
Scotica	Scotland	Scottish do
Costata	Wales	Ribbed do
Conoides	Weymouth	Conic do
Palmipes	Atlantic Isles	Palmated do
Minor	Indian Isles	Fleshcolored do
Angustata	Coast of Africa, &c.	Narrow mouthed
Elongata	Britain, &c.	Club-like do
Patellaris	Coast of Coromandel, &c.	Limpet-like do
Spinosa	St. Helena	Spinous do
Violacea	Indian Isles	Violet do
Crispata		Rugged do
Verruca	North Europe	Wart formed do
Rugosa	South Coast of England	Wrinkled do

Scientific Name.	*Locality.*	*Common Name.*
Punctatus	British Seas	Punctured B.
Radiata		Rayed do
Cariosa		Ridged do
Psittacus	Chili	Beaked do
Hemispherica	Africa	Hemispherical do
Lævis	East and West Indies	Smooth do
Striatus	English and Dutch coasts	Striated do

FAMILY 2.—*Having radiated cells at their base.*

Diadema	Mediterranean, &c.	Turban Barnacle
Balanaris		Whale do
Testudinaria		Turtle do
* Quinquevalvis		Five valve do

FAMILY 3.—*Having a porous base.*

Porosus	East Indies, &c.	Porous Barnacle
Purpurascens	Falkland's Isle	Purple do

FAMILY 4.—*Having a cup-like appendage at the base.*

Galeata	Mediterranean, &c.	Helmet-like do
Spongeosa	Dorsetshire	Spongy do

FAMILY 5.—*Tubular and truncated at both ends.*

Tracheaformis		Windpipe do

Species ~~DIVISION~~ II.—*Shells attached to a fleshy peduncle.*

Notwithstanding the great affinity which exists throughout the Lepas genus, there are a few exceptions, in which a resemblance is difficult to be traced; as, for example, in the L. scalpellum, L. anserifera, L. anatifera, and varieties emanating from them. These three species are closely allied to each other, but exceedingly dissimilar to the rest of the genus, for the generality of Lepades are affixed to other bodies or substances by the base, or lower part of the shell; but these are attached by a peduncle or stem, which proceeds from the base of the shell to the substance which sustains it.

The stems differ exceedingly in character and substance; they sometimes resemble a smooth, film-like tube, of a fine texture, not unfrequently tinged with bright red or orange; they are also often of a dark or bluish-brown color, the texture much coarser, and wrinkled, or granulated with little warts.

The peculiar structure of these species has caused them to be compared to the crocus, to which in appearance they bear a considerable resemblance.

The above species characterize the second division, which is subdivided into three families, distinguished by the number and position of the valves. The first consists of those species which have five valves, and a wreath of smaller ones round the base, as in the L. pollicipes. In the second family the valves are contiguous, as in the L. anserifera and L. anatifera, which are almost invariably composed of five valves; they are also supplied with beautiful feathery tentacula of a brown color, and elegantly curled. In the third family the valves are minute and not contiguous.

FAMILY 1.—*Having more than five valves, and a wreath of smaller ones round the base.*

Scientific Name.	*Locality.*	*Common Name.*
Mitella	Amboyna & East Indies	Mitred Barnacle
Scalpellum	Spain, &c.	Knife-like do
Pollicipes	France and Spain	Cornucopia do

FAMILY 2.—*Having only five contiguous valves.*

Scientific Name.	*Locality.*	*Common Name.*
Anserifera ·· ···	American and Indian seas	Striated Barnacle
Anatifera ······	Ditto ················	Duck ···· do ··
Dorsalis ·······	West Indies ···········	Wrinkled ·· do ··
Fascicularis ·····	European seas ·········	Bladder-like do ··
Vellosa ········	Mediterranean ········	Downy ···· do ··
Dentata ········	······················	Toothed ·· do ··
Sulcata ········	Dorsetshire ······· ····	Furrowed · do ··

FAMILY 3.—*Having minute and distant valves, placed on the fleshy extension of the peduncle.*

Aurita ········	Northern Coast ·······	Eared Barnacle
Vittata ········	Mediterranean & Atlantic	Ribband ·· do ··

PHOLAS.—STONE-PIERCER.

DESCRIPTION OF PLATE III.

Fig. 1. P. Striata. *(In the wood.)*

Fig. 2. P. Candida.	Fig. 4. P. Costata.
Fig. 3. P. Dactylus.	Fig. 5. P. Papyracea.

Shell having two primary valves, divaricate, with several smaller, differently-shaped accessory valves at the hinge:—hinge recurved, united by a cartilage; in the inside, beneath the hinge, is an incurved tooth.

IT appears that only twelve species of this genus have been enumerated, and some of these are so alike, that in many instances, they might be considered as mere varieties rather than different species; however, they all possess sufficient determinate characters to prevent their being blended with bivalves.

The form of the Pholas is in most species ovate or oblong, constituted by two large valves opposite to each other, and to which is attached, on the back of the shell, a number of smaller ones, that act as substitutes for a hinge, which in bivalves generally determines the generic character.

Another character of the Pholas is, that the valves (the two large ones) never shut close, they invariably are open at one end, and, in most instances, at both.

In the interior of the shell, in each valve, nearly in the middle, is an incurved tooth, sometimes of considerable length, and which has been considered peculiar to the genus.

The exterior of the Pholas is generally destitute of color; sometimes it partakes of a brownish cast, but the shell is usually of a pure or dusky-white: however, the absence of color is amply compensated by the beautiful fret-work with which the shells of this genus are adorned.

In some species the reticulations are so delicate in their structure, as to resemble the finest lace; in others the texture is coarser, and approaches nearer to small basket-work; and in the P. costata the shell is covered with regular, elevated, jagged, or scalloped ribs, elegantly disposed.

The Pholades are found occupying separate and distinct habitations, which they form in limestone, indurated clay, wood, coral, &c.; even the thick oak planks of ships are pierced by them: and as they advance in growth, they enlarge their habitation within, leaving the small aperture, by which they originally entered, of its primitive size.

The animal possesses the property of emitting a phosphorescent liquor, which shines with brilliancy, and illuminates whatever it touches.

The American, Indian, and European seas supply all the species that are known.

It is common in limestone, sandstone, &c. on the coast of England.

The Pholas derives its name from φωλέω, alluding to its custom of forming cells in rocks, &c.

Scientific Name.	*Locality.*	*Common Name.*
Dactylus	Europe	Prickly Piercer
Costata	Virginia, West Indies, South Europe, South Carolina	Ribbed do
Striata	South Europe, E. I. Ocean	Striated do
Candida	Europe, America, Britain, Bay of Campeachy	White do

Scientific Name.	*Locality.*	*Common Name.*
Crispata	North Europe, Britain	Curled Piercer
Orientalis	Siam and Tranquebar	Indian do
Cordata		Heartshaped do
Chiloensis	Chili	Chili do
Hians	West Indies	Gaping do
Parva	Pensacola, Britain	Small do
Falcata		Hooked do
Papyracea	Britain	Paper do

ORDER II.

Bivalves.

MYA.—TROUGH-SHELL, OR GAPER.

DESCRIPTION OF PLATE IV.

Fig. 1. M. Arenaria.	Fig. 3. M. Corrugata.
Fig. 2. M. Pubescens.	Fig. 4. M. Aurita.

Shell bivalve, generally gaping at one end.

THIS genus is placed by Linnæus the first on the list of Bivalves; the number of its species amounts to forty.

The principal characteristic of the Mya consists in its gaping at one end: the next general distinguishing mark is, its having a single, broad, patulous tooth, proceeding from beneath the beak. It is much wider and broader at one end than the other; and the broadest end has an excavation, which gives it the appearance of the bowl of a spoon.

The form of the Mya varies exceedingly: some are oblong and truncated; others, again, are orbicular or round; and many are angular or eared.

The greatest part of them are covered with a thick brown or green epidermis; when this is removed, and the shell polished, brilliant prismatic hues are displayed.

In some places the Mya constitutes a considerable portion of food for man, birds, &c. They have a propensity to burrow in the sand and mud, in which they are wholly or partially concealed.

The Mya is derived from μύαξ, which was applied by the antient naturalists to the genus Mytilus.

Division I.—*Hinge with one or two rounded teeth, not inserted in the opposite valve.*

Some species of this division grow to a large size, as the M. glycymeris.

Scientific Name.	*Localities.*	*Common Name.*
Glycymeris	Mediterranean Sea, Spain, Portugal, and Naples	Great Gaper
Truncata	Europe, Britain	Abrupt do
Arenaria	Ditto	Sand do
Declivis	Devonshire, Weymouth	Sloping do
Pubescens	Ditto	Pubescent do
Prætensus	Britain	Spoon-hinge do
Anatina	Mouth of the Niger	Duck do
Globosa		Globular do
Nicobarica	Nicobar Islands	Nicobar do
Rostrata	Bergen	Beaked do
Distorta	Plymouth	Deformed do
Bidentata	Devonshire	Double-toothed do
Decussata	Frith of Forth	Decussated do
Purpurea	Devonshire	Purple do
Ferruginosa	Belton Sands, Dunbar	Rusty do
Nitens		Glossy do
Prismatica	Scotland, Devonshire	Prismatic do
Substriata	Devonshire	Substriated do

DIVISION II.—*Hinge callous, without teeth.*

Scientific Name.	*Locality.*	*Common Name.*
Edentula	Caspian Sea	Toothless Gaper
Membranacea	Iceland	Membraneous G.
Norwegica	Norway	Norwegian do
Siliqua	N. America	Bean-pod do

DIVISION III.—*Hinge with teeth inserted into the opposite valve.*

The M. ponderosa, or M. crassa of some authors, with others in this division, are remarkable for their excessive weight and thickness; which is universally the case with those that are found in rapid rivers and cataracts.

The M. margaritifera is famous for the production of fine pearls, and was formerly found in great quantities in the river Conway in Wales, and in Scotland.

Scientific Name.	*Locality.*	*Common Name.*
Batava	Danube, Rivers of Holland R. Kennet	Dutch Gaper
Pictorum	European Rivers	Painters' do
Ovata	Rivers of England	Oval do
Radiata	Rivers of Malabar	Radiated do
Ponderosa	Chinese Rivers	Ponderous do
Complanata	North American Rivers	Smooth do
Nodulosa	Rivers of North Europe	Knotted do
Margaritifera	Rivers of Coromandel	Pearl do
Corrugata	Ditto	Wrinkled do
Rugosa	Ditto	Rough do
Variabilis	South American Rivers	Variable do

Scientific Name.	*Locality.*	*Common Name.*
Nodosa	Rivers of India	Knobbed do
Syrmatophora	Rivers of Guinea	Angular do
Suborbicularis	Coasts of Devonshire	Roundish do
Inæquivalvis	Coasts of Britain	Inequivalve do
Labiata	South American Rivers	Lipped do
Aurita	Ganges	Eared do

Division IV.—*Hinge toothless, with a conical rounded hollow for the reception of the cartilage.*

Vulsella	Amboyna, Tranquebar	Tweezer do

SOLEN.—Razor-sheath or Knife-handle.

DESCRIPTION OF PLATE V.

Div. I.—Fig. 2. S. truncatus.
Fig. 3. S. vagina.
Div. II.—Fig. 1. S. oriens.
Div. II.—Fig. 4. S. vespertinus.
Fig. 5. S. radiatus.
Fig. 6. S. occidens.

Shell bivalve, oblong, open at both ends: hinge with a subulate reflected tooth, often double, and not inserted in the opposite valve.

OF this genus there are thirty-five species, which vary exceedingly in form and general appearance.

The principal characteristic is derived from the hinge, usually supplied with one subulate tooth, which is often found double, though not always inserted in the opposite valve.

Most species of the Solen are covered with a thin cuticle or epidermis, which renders the colors beneath more or less obscure.

The first division consists of those species, whose breadth greatly exceeds their length; and the second, of those that are oval or oblong.

In some species of the first division, as in S. siliqua S. vagina, &c. the breadth of the shell is nearly seven times its length, giving it a resemblance to the handle of a knife, or sheath of a razor; and some are curved or bent like the scabbard of a scimitar. The shells of this division have both ends invariably open.

The greater proportion of the shells of this genus are found in the European and Northern seas. The

Indian, American, and Mediterranean seas also produce many species.

The Solen derives its name from σολὴν, a tube.

DIVISION I.—*Shell linear.*

Scientific Name.	*Locality.*	*Common Name.*
Vagina	Britain	Razor Sheath
Truncatus	American and Indian Seas	Truncated R. S.
Novacula	Wales	Knife do
Siliqua	Europe	Pod-like do
Linearis	Indian Seas	Slender do
Ensis	Europe	Sword do
Pellucidus	Britain	Pellucid do
Legumen	Mediterranean, Britain	Pease-cod do
Cultellus	Ceylon	Kidney-shaped do

DIVISION II.—*Shell ovate or oblong.*

The shells of this division present but little beauty, with the exception of the S. oriens, S. radiatus, S. roseus, and a few others, which have a fine pink color, or are delicately rayed with purple and white. Some species of this division closely resemble the Tellinæ, but they may always be distinguished by an examination of the hinge.

Scientific Name.	*Locality.*	*Common Name.*
Antiquatus	Britain	Antique R. S.
Gigas	N. W. Coast of America	Giant do
Magnus	Indian Isles	Great do
Minimus	Tranquebar	Small do
Guineensis	Guinea	Guinea do
Inflexus		Inflected do
Diphos	Indian Ocean	Violet do
Radiatus	China, Amboyna	Rayed do

Scientific Name.	*Locality.*	*Common Name.*
Strigilatus	Mediterranean	Strigilated R. S.
Coarctatus	Nicobar Isles, Britain	Narrow do
Fragilis	Nicobar Isles, Britain	Brittle do
Anatinus	Coromandel Coast	Duck's-bill do
Roseus	Red Sea	Rose-colored do
Striatus	Indian Seas	Striated do
Castrensis	Guinea Coast	Zigzag do
Biradiatus	South Seas	Double rayed do
Sanguinolentus	West Indies	Sanguineous do
Oriens	China	Rising Sun
Occidens	Ceylon	Setting Sun
Amethystus	Indian Seas	Amethyst R.S.
Variegatus		Variegated do
Bullatus	East and West Indies	Inflated do
Minutus	Great Britain, N. Europe	Minute do
Virens	Coast of Java	Green do
Squamosus	Devonshire	Scaly do
Vespertinus	European & Mediterranean Seas	Vesper do

TELLINA.—Tellen.

DESCRIPTION OF PLATE VI.

Div. I.—Fig. 1. T. virgata.
Div. I.—Fig. 4. T. Ferroensis
Div. II.—Fig. 2. T. foliacea.
Fig. 3. T. rostrata.
Fig. 5. T. tenuis.
Div. II.—Fig. 9. T. inæquivalvis.
Div. III.—Fig. 6. T. flexuosa.
Fig. 7. T. crassa.
Fig. 8. T. cornea.

Shell bivalve, generally sloping on one side: in the fore part of one valve there is a convex, and in the other a concave fold; hinge with usually three teeth, the lateral smooth in one valve.

OF this genus there are eighty-one species. Of all the different genera of Bivalves, there are none, except the Venus, which can vie with the Tellina in beauty, variety, or number.

The usual form of the Tellinæ is broad at one end, and gradually tapering towards the other; in some cases the pointed termination of the shell forms a beak, as in the T. rostrata, T. rufescens, &c. Others, on the contrary, are more orbicular, as the T. scobinata, &c. and some, as the T. gari, &c. are nearly allied to several species of the genus Solen, for which they are sometimes mistaken; however, from the more acute termination of the beak in the Tellinæ, the difference may be easily distinguished. The hinge of the Tellina will also assist in removing any doubt that may have originated from an inaccurate examination of the shell; for it is usually furnished with three teeth, the middle one often cleft, and the lateral teeth most commonly smooth. The interior margin is rarely crenulated.

The exterior of these shells varies materially, some being perfectly smooth and polished, whilst others are covered with minute striæ and undulations; and occasionally the whole surface is beset with imbrications or scales.

Some species of the Tellina are remarkable for their beautiful radiations, the colors of which are rarely to be equalled in any of the other genera.

The Tellinæ are produced in abundance in almost every sea; the rivers, pools, ponds, and marshes of Europe and America supply only a few. The finest varieties are found in the pearl fisheries of Ceylon.

The Tellina takes its name from τελείω.

DIVISION I.—*Ovate and thickish.*

Scientific Name.	*Locality.*	*Common Name.*
Gargadia	Indian Ocean	Toothed Tellen
Rugosa	Otaheite, W. Indian Seas	Rugged do
Lingua Felis	Indian Ocean	Cat's tongue do
Marginalis	Coasts of China	Margined do
Virgata	Amboyna, Ceylon, Bay of Naples, Moluccas	Striped do
Interrupta	West India Islands	Freckled do
Angulata	Tranquebar, Mediterranean	Angular do
Inflata		Inflated do
Polygona	Tranquebar, Naples	Polygonal do
Lacunosa	Coast of Guinea	Marshy do
Gibbosa		Gibbous do
Gari	Amboyna, Molucca Isles, China	Varying do
Ferröensis	Britain, Ferroe Isles, Norway	Carnation do

Scientific Name.	*Locality.*	*Common Name.*
Fragilis	European Ocean, Caspian sea, Mediterranean	Brittle Tellen
Obliqua		Oblique do

Division II.—*Ovate and compressed.*

Triangularis		Triangular do
Oblonga	European Ocean	Oblong do
Spengleri	Nicobar Isles, Coromandel, China	Spengler's do
Foliacea	Amboyna, Molucca Isles,	Golden do
Acuta	West Indies	Sharp edged do
Planata	European and Mediterranean Seas	Flat do
Strigosa	West Coast of Africa, Molucca Isles	Fasciated do
Lævigata	European & Indian oceans, West Indies	Smooth do
Madagascariensis	Coasts of Madagascar, Coromandel	Madagascar do
Radiata	European Ocean, Bahamas, Ascension Island, West Indies	Rayed do
Pallescens	East Indian Seas	Pale do
Rostrata	Amboyna, Java, Tranquebar	Beaked do
Rufescens	Coasts of Brazil	Red do
Flavescens	East Indian Seas	Yellow do
Hyalina	Coasts of Guinea	Glassy do
Inæquivalvis	Mediterranean, Norway, Britain	Inequivalve do
Trifasciata	European Ocean	Three banded do
Coccinea	Mediterranean	Scarlet do
Incarnata	Mediterranean, Sweden	Flesh color'd do
Opalina	Nicobar Isles, Tarentum	Opaline do
Lanceolata	East Indian Seas	Lance-shap'd do
Sanguinea		Sanguineous do
Nivea	American Ocean	Snowy do
Sulcata		Sulcated do

Scientific Name.	*Locality.*	*Common Name.*
Donacina	Mediterranean, Britain	Donax Tellen
Angusta	Frith of Forth	Narrow do
Truncata	Java	Truncated do
Punicea	West Indian Seas, Coasts of Britain and Guinea, Rhode Island	Flat striated do
Depressa	Coasts of Britain	Depressed do
Fabula	Mediterranean, Coasts of Norway and America, West Indies, Britain	Semi-striated do
Tenuis	Coasts of Britain	Thin do
Vitrea	Baltic, Northern Ocean	Transparent do
Striata	Coasts of Dorsetshire	Striated do
Balaustina	Mediterranean	Pomegranate do
Calcaria	Coasts of Iceland, Ferroe Isles	Chalky do

DIVISION III.—*Sub-orbicular.*

Remies	European and Indian Oceans, Coasts of America, Nicobar Isles	Waved do
Fausta	West Indies, Dorsetshire	Obsolete do
Reticulata	West India Isles, Britain	Netted do
Cancellata	Coasts of Goree	Reticulated do
Guinaica	Coasts of Guinea, Frith of Forth	Guinea do
Scabra	West Indian Seas	Rough do
Crassa	Guernsey, Britain, Normandy	Thick do
Decussata		Decussated do
Cordiformis	West Indian Seas	Heart shaped do
Muricata	West Indian Seas, Coasts of Terra Firma	Prickly do
Scobinata	Asiatic Ocean, Coasts of Surat, Jamaica, & Barbadoes	Rasp do
Lactea	Mediterranean, Lisbon, Britain	Milky do
Rotundata	Norway, Senegal, Britain	Round do
Flexuosa	Coasts of Britain	Crooked do

Scientific Name.	*Locality.*	*Common Name.*
Carnaria	West Indies, Curacoa, Britain	Pink Tellen
Zonata	Mediterranean, Britain, West Indies	Banded do
Bimaculata	European Ocean, East and West Indian Seas	Double spot do
Balthica	The Baltic	Baltic do
Pisiformis	Mouths of Rivers in the European Seas	Pea do
Divaricata	Coasts of Brazil, Mediterranean, American Seas, Naples	Obliquely striated
Dentata		Toothed do
Digitaria	Mediterranean, Nicobar Isles	Digital do
Cornea	Rivers & ponds in Europe	Horn colored do
Lacustris	Denmark, Britain	Lake do
Amnica	Denmark, Britain	River do
Pusilla	Rivers in Europe and Virginia	Minute do
Limosa	Rivers in South America	Maton's do
Fluminalis	Euphrates	Euphrates do
Hermaphrodita	Guinea	Olive do
Fluminea	Rivers of China	Ribbed do
Fluviatilis	Canton	Chinese do

CARDIUM—Cockle or Heart-shell.

DESCRIPTION OF PLATE VII.

Div. I.—*Fam.* 1. Fig. 3. C. cardissa.
Div. II.—*Fam.* 1. Fig. 6. C. retusum.
Fam. 2. Fig. 8. C. isocardia.
Fam. 4. Fig. 1. C. medium.---Fig. 4. & 5. C. parvum.
Div. III.—*Fam.* 1. Fig. 7. C. lævigatum.
Fam. 2. Fig. 2. C. serratum.

Shell bivalve, nearly equilateral, equivalve, generally convex, longitudinally ribbed, or striated, with a crenated margin: hinge with two teeth near the beak, and a larger remote lateral one on either side, each locking into the opposite valve.

THIS genus contains forty-seven species, which vary much in color and structure. The most general shape is convex or orbicular; some are elongated and compressed; and others have the form of a flattened heart.

The general characteristics of this genus are longitudinal ribs and grooves, proceeding from the umbones to the margin, and crossed by delicate striæ, like the common Cockle, but more distinctly articulated. In some species the surface is smooth and polished; and in others, the ribs are beset with rows of acute spines. The interior margin is almost universally crenated.

The umbones of the shells of this genus differ considerably in position: in some they are placed opposite each other, remote or approximate; and in others alternating. This variety of appearance has caused the Cardia to be separated into three divisions, and those divisions into families.

Specimens of this shell are found in almost every sea, and some, though rarely, at the mouths of the rivers Tees, Thames, &c.

This genus has been named Cardium from the resemblance which its species bear to a heart (καρδία).

Division I.—*Heart-shaped, valves compressed, umbones alternating.*

Scientific Name.	*Locality.*	*Common Name.*
Cardissa	East Indies	Venus's Heart
Humanum	East Indies	Concave do
Roseum	Malay coast	Rose do
Monstrosum	South Sea Isles	Recurved do

Division II.—*Sub-cordate, longitudinally ribbed.*

One of the most rare species of this division is the C. costatum, which has rows of white, hollow, elevated ribs, situated at regular distances, proceeding from the umbones to the margin; and the spaces between them are, in perfect specimens, of a fine dark brown color.

The C. fragum and C. unedo differ from the other species of this division, their ribs being armed with small crescent-shaped scales.

Family 1.—*Having a crescent shaped cavity beneath the umbones.*

Retusum	India	Diana's Heart

Family 2.—*Ribs armed with nodules, elevated rough striæ, wrinkles or scales.*

Scientific Name.	*Locality.*	*Common Name.*
Edule	Britain	Common Cockle
Unedo	India	Strawberry Heart
Fragum	Ditto	White strawberry
Hemicardium	Ditto	Heart shaped C
Tuberculatum	Mediterranean	Tuberculated do
Isocardia	East & West Indies	Imbricated do
Pectiniforme		Pecten do
Regulare	West Indies	Regular do
Glaucum	Mediterranean	Chamelion do
Fasciatum	Britain	Banded do
Elongatum	Ditto	Lengthened do
Leucostomum	West Indies	White mouth'd C.
Magnum		Great do
Rigidum		Rigid do
Maculatum	Ceylon	Spotted do

Family 3.—*With ribs armed, more or less spined.*

Flavum	Ceylon	Yellow do
Spinosum	Mediterranean	Spined do
Echinatum	Ditto, Britain	Thorny do
Lima	East Indies	Asiatic do
Muricatum	West Indies	Prickly do
Rugatum	East & West Indies	Gaper do
Latum	East Indies	Broad do
Ciliatum	Greenland	Fringed do
Aculeatum	Britain	Spinous do
Muricatulum	Coast of Kent	Minute do

Family 4.—*With ribs unarmed.*

Costatum	Africa	High ribbed do
Medium	West Indies, Britain	Marbled do
Donaciforme	West Indies	Triangular do
Exiguum	Britain	Pigmy do

Scientific Name.	*Locality.*	*Common Name.*
Ringens	Africa	Gaper Cockle
Oblongum	Mediterranean	Oblong do
Papyraceum	Indian ocean & Mediter.	Paper do
Fimbriatum		Furbelowed do
Rusticum	Mediterranean	Banded do
Islandicum	Greenland	Iceland do
* Parvum	Coast of Hampshire	Diminutive do

DIVISION III.—*Sub-cordate, obsoletely ribbed, striated or smooth.*

FAMILY 1.—*Obsoletely ribbed.*

Lævigatum	Britain, Mediterranean	Smooth Cockle

FAMILY 2.—*Lightly striated, approaching smooth.*

Lineatum	East Indies	Streaked Cockle
Serratum	W. Indies, Mediterranean	Citron do
Grœnlandicum	Greenland seas	Greenland do
Æolicum	Africa	Janus do
Rubrum	Britain	Red do

MACTRA.—KNEADING-TROUGH.

DESCRIPTION OF PLATE VIII.

Div. I.—*Fam.* 1. Fig. 1. M. carinata.
Fam. 1. Fig. 3. M. cinerea.
Fam. 1. Fig. 5. M. stultorum.
Fam. 2. Fig. 2. M. violacea.
Fam. 2. Fig. 4. M. subtruncata.
Div. II.—*Fam.* 2. Fig. 6. M. listeri.
Fam. 3. Fig. 7. M. lutraria.

Shell bivalve, inequilateral, equivalve: middle tooth of the hinge complicated, with a small hollow on each side; lateral ones remote, and inserted into each other.

THE genus Mactra possesses little beauty or variety. The number of species amounts to forty-two, and a similarity of coloring and form pervades the whole.

The shape of the Mactra is subtriangular, or oblong. The exterior is generally smooth, or delicately striated; but in some species it is transversely wrinkled or ribbed. The valves in a few specimens gape at both ends, in others at the anterior only, and some have both ends closed. These characters form the distinctions of the divisions and families of the genus.

The most prevailing color is lilac, or white tinged with blue or yellow, and some species have delicate rays of purple upon a brown ground. The Mactræ have a semipellucid appearance, and are generally thin, brittle, and remarkably light.

The hinge of the Mactra, by which it is distinguished from all the other genera of Bivalves, is of a triangular form, and has a small hollow on each side; and though it is very strongly articulated in some species, the teeth are universally thin and fragile. The interior margin is rarely crenated or toothed.

The Mactra is derived from μάκτρα, a kneading trough.

Division I.—*Shell sub-angular.*

Family 1.—*Having a smooth surface.*

Scientific Name.	*Locality.*	*Common Name.*
Spengleri	Cape of Good Hope	Spengler's Mactra
* Carinata	Mediterranean	Keeled do
Maculata	Nicobar Isles	Spotted do
Corallina	Mediterranean, Guinea	Banded do
Lactea	Tranquebar	Milky do
* Cinerea	Britain	Ashy do
Stultorum	Britain	Foolish do
Grandis	New Jersey	Great do
Achatina		Agate do
Triangularis	Britain	Triangular do
Minutissima		Minute do
Donaciformis	Ceylon	Donax do

Family 2.—*Having a striated or wrinkled surface.*

Striatula	W. Indies, Mediterranean	Striated do
Plicataria	Indian Ocean	Plaited do
Papyracea	Nicobar Isles	Paper do
Vitrea	Ceylon	Brittle do
Cygnea	Tranquebar	Swan do
Turgida	Ditto	Inflated do
Violacea	Ditto	Violet do
Cuneata	Ditto	Wedge do
Rotundata		Roundish do
Glabrata	African Ocean	Smooth do
Nitida		Delicate do
Striata		Striated do
Radiata	Britain	Rayed do

Scientific Name.	*Locality.*	*Common Name.*
Solida	Britain	Strong Mactra
Solidissima	North America	Thick do
Truncata	Britain	Truncated do
Subtruncata	Britain	Abrupt do
Australis	New Zealand	Southern do
Piperata	Mouth of the Niger	Pepper do
Tenuis	Britain	Thin do
Boysii	Ditto	Boys' do

Division II.—*Shell ovate, oblong.*

Family 1.—*Closed at both ends.*

Glauca	Spain and Britain	Red rayed do
Rugosa	Mediterranean, Nicobar	Rugged do
Egyptiaca	Red Sea	Egyptian do

Family 2.—*Gaping at the anterior end.*

Pellucida	Guinea	Pellucid do
Fragilis	Britain, Nicobar	Brittle do
Listeri	Britain	Lister's do

Family 3.—*Gaping at both ends.*

Planata	Tranquebar, Britain	Flattened do
Lutraria	Britain	Muddy do
Hians	Ditto	Gaping do

DONAX.—WEDGE-SHELL.

DESCRIPTION OF PLATE IX.

Div. I.—Fig. 1. D. scortum.
Div. II.—Fig. 4. D. denticulata.
Fig. 5. D. trunculus.
Fig. 6. D. elongata.
Div. III.—Fig. 3. D. madagascariensis.
Div. IV.—Fig. 2. D. scripta.
Fig. 7. D. stultorum.

Shell bivalve, with generally a crenulated margin, the frontal margin very obtuse; hinge with two teeth, and a single marginal one placed a little behind, rarely double or triple.

THE principal characteristic of the Donax is derived from its form, which (throughout its twenty-four species) is similar to that of a wedge, being very broad and thick at one extremity, and gradually tapering towards the other. The margin, which is generally of a deep color, is almost invariably crenulated or beset with small contiguous teeth; and the frontal margin is generally very obtuse: the anterior slope not unfrequently gapes, and has a ligament situated near the fissure, which prevents the two valves from separating, when the animal has occasion to open them.

Some specimens of this genus, in their external appearance, bear a strong resemblance to the species of the Venus; but the examination of the hinge will always determine to which of the genera the shell belongs.

The Donax presents so great a diversity in external character, that it has occasioned the genus to be separated into five divisions. In the first, the species exhibit a rough and decussated surface, caused by crowded striæ, crossing each other in a transverse and longitudinal direction, thus giving the shell a spiny appearance, as in the D. scortum and D. pubescens. The second and third divisions are also characterized by the position of the striæ, which in the one are longitudinal, and in the other transverse. The shells of the fourth division have a smooth and polished surface; and the fifth at present consists of one species only, which has its surface partially covered with transverse membranaceous ridges.

The most prevailing color is a rich purple, which sometimes only appears in rays on a white ground, diverging from the beaks to the margin. Many of the species are of an olive-yellow tinge, which often inclines to a bright orange; and others, again, have a pink hue, finely diversified with brown zigzag markings, as in the D. scripta, &c. and in some instances the shells are variously banded. The interior almost always partakes of the coloring of the exterior.

It is doubtful whether any shells of this genus are natives of rivers, as they are generally found buried in the sand of the sea shore. Although the species and varieties are but few, and thinly scattered over most parts of the globe, yet some coasts (the European in particular) supply a profusion, but of no great variety.

The Donax derives its name from its shape, which resembles the barbed head of a javelin or dart (δόναξ).

Division I.—*With decussated and muricated striæ.*

Scientific Name.	*Locality.*	*Common Name.*
Scortum	Ceylon, East Indies	Beaked Donax
Pubescens	Amboyna	Spiny do
Muricata	Indian Ocean	Prickly do
Spinosa	Tranquebar	Spinous do

Division II.—*Longitudinally striated.*

Rugosa	South Sea, Mouth of the Niger, Mediterranean	Wrinkled do
Serra	Tranquebar, C. G. Hope	Crenated do
Trunculus	Great Britain, Mediterranean, West Indies	Common do
Striata	Jamaica, Mediterranean	Striated do
Denticulata	Mediterranean, Africa, Great Britain	Toothed do
Incarnata	Tranquebar	Flesh color'd do
* Elongata	Red Sea	Elongated do

Division III.—*Transversely striated.*

Plebeia	Dorsetshire	Horn color'd do
Castanea	West of England	Chesnut do
Faba	Malabar	Bean shaped do
Straminea		Straw color'd do
Candida	Tranquebar	White do
Radiata	Ditto	Rayed do
Cuneata	Ditto, East Indies	Wedge do
*Madagascariensis	Madagascar	Madagascar do

Division IV.—*Smooth.*

Scientific Name.	*Locality.*	*Common Name.*
Complanata	Germany, Great Britain	Single rayed D.
Lævigata	Tranquebar	Smooth do
Scripta	E. Indies, Mediterranean	Lettered do
* Stultorum	Indian Seas	Foolish do

Division V.—*Shell with transverse membranaceous ridges.*

Irus	Britain, Mediterranean	Ragged do

VENUS.—Venus.

DESCRIPTION OF PLATE X.

Div. I.—Fig. 1. V. dione.
Div. II.—Fig. 2. V. ornata.
Fig. 5. V. ovata.
Fig. 6. V. flexuosa.
Div. II.—Fig. 8. V. pectunculus.
Div. III.—Fig. 7. V. scripta.
Div. V.—*Fam.* 1. Fig. 4. V. literata.
Fam. 1. Fig. 3. V. palustris.

Shell bivalve, the frontal margin flattened, with incumbent lips: hinge with three approximate teeth, the lateral ones divergent at the tip.

IT has already been observed, that this genus, with regard to beauty, surpasses the other genera of Bivalves. It contains no less than one hundred and fifteen species.

The divisions of the Venus are also very numerous, and are distinguished by a much greater variety of form, (as the elongated, compressed, angular, and orbicular,) than is to be observed in any other genus of this order.

Notwithstanding this great diversity of formation, there is one leading feature which is observable in most of the species, viz. the flatness of the frontal margins, and the lips being often incumbent; but the surest guide in the classification of these shells is the hinge, which, with scarce any exception, contains three teeth, all approximate; in addition to these, there is a lateral tooth, not unfrequently divergent at the tip. The interior margin of the shell is sometimes crenulated; and a few of the species, though rarely, gape.

In many specimens the exterior surface is covered with longitudinal or transverse striæ, sometimes with both, which not unusually terminate in foliations near the margins.

The coloring of the exterior, as well as the interior, is of almost every possible shade; and sometimes of the most beautiful and lively tints.

Specimens of this genus are found in most parts of the world.

DIVISION I.—*With the anterior depression spinous.*

Scientific Name.	*Locality.*	*Common Name.*
Dione ··········	S. America, West Indies, Brazil, Trinidad ······	Spined Venus ··
Marica ·········	American Seas, W. Indies	American ·· do ··

DIVISION II.—*Subcordate.*

Many species of this division, as the V. erycina, V. maculata, V. chione, &c. are remarkable for the smoothness and brilliant lustre, as well as the high and rich coloring of their surfaces; and others, as the V. paphia, V. reticulata, &c. though inferior in color and polish, are nevertheless much admired on account of the beautiful reticulations with which they are ornamented. The V. mercenaria, which in fine specimens is of a rich purple, forms the wampum or money of the North American Indians.

Scientific Name.	*Locality.*	*Common Name.*
Paphia ··········	W. Indies, Mediterranean	Paphian Venus ··
Fasciata ········	Great Britain, W. Indies	Thick ribbed do ·

Scientific Name.	*Locality.*	*Common Name.*
Succincta		Grooved Venus
Cingenda	W. Indies, Frith of Forth	Girdled do
Dysera	American & Asiatic Ocean	Ribbed do
Tiara	East Indies	Turban do
Plicata	Levant Sea	Plaited do
Excavata	Great Britain	Excavated do
Spinifera	Devonshire	Spiny do
Verrucosa	G. Britain, Mediterranean	Warty do
Rigida	West Indies, Brazil	Rigid do
Casina	Great Britain	Broad-ribbed do
Cancellata	East and West Indies	Channeled do
Subcordata		Subcordate do
Minima	Falmouth Harbour	Redstreaked do
Sulcata	Coast of Scotland	Furrowed do
Montagui	Ditto	Montagu's do
Scotica	Ditto	Scottish do
Danmonia	Devonshire	Devonshire do
Reflexa		Reflected do
Gallina	Mediterranean, Norway, Great Britain	Hen do
Circinata	Guinea, Frith of Forth	Compass do
Caliste	Red Sea	Dirty white do
Compressa		Compressed do
Exalbida	Falkland Isles	Whitish do
Petulca	South Coast of Europe	Clouded do
Granulata	West Indies, Great Britain	Grained do
Ovata	Great Britain	Oval do
Paupercula	Coromandel	Despised do
Flexuosa	West Indies	Flexuous do
Mactroides	Guinea, West Indies	Mactra do
Tripla	Africa, Mouth of the Niger	Triple do
Triangularis	Coast of Devonshire	Triangular do
Malabarica	Malabar	Malabar do
Flammea	Red Sea	Brown band do
Erycina	Europe, East Indies	Polished do
Costata	Ceylon	Ribbed do
Pacifica	South Seas, China	South Sea do
Mercenaria	North America, Norway	Money do
Islandica	Iceland, Great Britain	Icelandic do
Coaxans	Rivers in Ceylon	Ceylon do

Scientific Name.	*Locality.*	*Common Name.*
Lusoria	Amboyna, China	Sportive Venus
Chione	Asiatic Ocean, Mediterranean, Great Britain	Smooth brown do
Maculata	West Indies, Brazil, New S. Wales	Spotted do
Casta	East Indies	Chaste do
Meretrix	Indian Seas, Mouths of Rivers in Ceylon	Lipped do
Paradoxa	Coast of Peru	Doubtful do
Læta	Mediterranean, Indian seas	Globose do
Pinguis	East Indies	Sleek do
Triradiata	Tranquebar	Three rayed do
Nebulosa	Ditto	Clouded do
Exilis	Malabar	Abandoned do
Recens	Coromandel	Recent do
Japonica	Japan	Japanese do
Striata	Nicobar Isles	Striated do
Castrensis	East and West Indies	Camp do
Pectunculus	Red Sea, East Indies	Painted do
Lorenziana	Ceylon	Lorenzo do
Ornata	Tranquebar, Mauritius	Adorned do
Phryne	So. Ocean, Persian Gulf	Phryne do
Meroe	East Indies, Brazil	Meroe do
Callipyga	Red Sea	Arabian do
Deflorata	Great Britain, West Indies, Mauritius	Purple streaked
Fimbriata	E. Indies, Pacific Ocean	Fringed do
Reticulata	Tranquebar, N. S. Wales	Netted do
Puerpera	East Indies, China	Spotted do
Crenulata	Ditto, Campeachy	Crenulated do
Radiata		Rayed do
Cincta		Girdled do
Squamosa	Amboyna	Scaly do
Lapicida	West Indies, in corals	Rock do
Divergens	Ditto	Ziczac do
Plumbea	New Zealand	Leaden do

Division III.—*Sub-orbicular.*

Scientific Name.	*Locality.*	*Common Name.*
Tigrina	West Indies, Britain	Tiger Venus
Sinensis	China	Chinese do
Prostrata	Tranquebar	Compressed do
Punctata	New South Wales	Punctured do
Excisa	Tranquebar	Defaced do
Exoleta	Jamaica, Great Britain	Antiquated do
Concentrica	North America, Jamaica, Brazil	Concentric do
Juvenis	East Indies	Young do
Histrio	Ditto	Partycolored do
Undata	Coast of Britain	Waved do
Tumidula		Gibbous do
Borealis	Coast of Europe	Northern do
Aculeata		Acute ribbed do
Pectinata	Amboyna, South Sea	Pectinated do
Discors	Mauritius, China	Toothed do
Dispar	South Sea	Unequal do
Equivoca	East Indies	Equivocal do
Divaricata	Ditto	Divaricated do
Contraria	Guinea, West Indies	Contrary do
Corrugata	Red Sea	Corrugated do
Scripta	Amboyna, Naples, S. Seas	Written do

Division IV.—*Shells inflected with a longitudinal furrow on the anterior end.*

Pensylvanica	Pensylvania, West Indies	Pensylvanian do
Edentula	Jamaica, St. Croix	Toothless do
Jamaicensis	Jamaica	Jamaica do
Spuria	Britain, Mediterranean	Spurious do
Globosa	Red Sea	Globose do

Division V.—*Shells sub-oval, and slightly angulated on the anterior side.*

Family 1.—*Smooth or striated.*

Scientific Name.	*Locality.*	*Common Name.*
Gigantea ·······	Florida, Antigua ·······	Gigantic Venus ··
Literata ·······	Amboyna ·············	Lettered ·· do ·
Geographica ····	Mediterranean ······ ··	Geographic do ··
Rotundata ······	Indian Ocean, Ceylon ··	Rounded ·· do ··
Undulata ·······	East Indies, Mediterranean, Red Sea ·······	Undulated · do ··
Obsoleta ········	Mediterranean··········	Obsolete · do ··
Decussata ······	Indian Ocean, Great Britain, Mediterranean ··	Intersected · do ··
Senegalensis · ··	Senegal ·· ·· ·· ····· ··	Senegal ··· do ··
Perforans ·· ·· ··	Plymouth, in limestone ··	Piercing ·· do ··
Virginea ········	East and West Indies, Great Britain, Adriatic	Virgin ···· do ··
Aurea ··········	Great Britain ··········	Golden ·· · do ··
* Palustris·······	Ditto···· ·············	·········· do ··
Monstrosa ·······	Nicobar Isles ······· ···	Distorted ·· do ··

Family II.—*Foliated.*

Agaracoides·····	New Holland··········	Mushroom ·· do ··

SPONDYLUS.—Thorny Oyster or Artichoke

DESCRIPTION OF PLATE XI.

Div. I.---*Fam.* 1. Fig. 1. S. gædaropus.---Fig. 4. variety.
Div. II.---*Fam.* 1. Fig. 3. S. anacanthus. *Fam.* 2. Fig. 2. S. plicatus.

Shell hard, solid, with unequal valves; one of the valves convex, the other rather flat: hinge with two recurved teeth separated by a small hollow.

THIS genus, though presenting innumerable varieties, contains only ten distinct species, and these, from their extreme irregularity of formation, and great similarity of appearance, may often be confounded with each other.

The most striking character of the Spondylus is, that its valves, which resemble those of the common oyster, have their outsides covered with longitudinal rows of erect spines or ramifications. The spines are usually round, and terminate in a point; the ramifications or branchings, on the contrary, are flat, and have jagged and patulous extremities. These peculiarities form the distinctions of the two families of the first division. Many species possessing these characters are also concentrically plaited on the lower valve. The second division is distinguished by its species being longitudinally striated or plaited.

The hinge is furnished with two recurved teeth, which are very strong and articulate, and separated by a small but deep hollow; the inner margin is usually crenulated, and highly colored with orange or purple. The lower valve generally protrudes much beyond the upper, and terminates in a curved and lengthened beak, which in most of the genus has ears on each side.

The usual colors are orange, red, purple, white, or brown, two of which are often blended in the same shell.

The Spondyli are met with in the American, Indian, Mediterranean, and other seas, adhering to rocks, corals, &c. in groups, often forming large masses; others are also found attached to shells.

This genus has been named Spondylus, from the resemblance which some of its species bear to the head of an artichoke (σπόνδυλος).

Division I.—*Shell armed with spines or ramifications.*

Family 1.—*Sharp spines.*

Scientific Name.	*Locality.*	*Common Name.*
Gædaropus	Amboyna, West Indies	Thorny red Spon.
Regius	India	Royal do
Aurantius	Mauritius	Orange do
Citrinus	East Indies	Yellow do
Histrix	Indian Seas	Hedgehog do

Family 2.—*Having palmated or foliated ramifications.*

Palmatus		Palmated do
Spathuliferus		Pied do
Ducalis		Ducal do

Division II.—*Shell unarmed.*

Family 1.—*Upper valve longitudinally striated.*

Anacanthus	Indian Seas	Spineless do

Family 2.—*Valves longitudinally plaited.*

Plicatus	West Indies	Plaited do

CHAMA.—CLAMP, CLAM, OR GAPER.

DESCRIPTION OF PLATE XII.

Div. I.—*Fam.* 1. Fig. 1. C. gigas.
Fam. 1. Fig. 2. C. hippopus.
Fam. 2. Fig. 4. C. antiquata.
Fam. 2. Fig. 5. C. rosea.
Fam. 3. Fig. 6. C. concamerata.
Fam. 6. Fig. 3. C. cor.
Div. II.—Fig. 7. C. gryphoides.
Fig. 8. C. arcinella.

Shell bivalve, rather coarse; hinge with a callous gibbosity, obliquely inserted in an inclined hollow; anterior slope closed.

THIS genus contains only twenty-seven species, but presents considerable diversity in character. It comprehends species the most dissimilar in form and magnitude, and some as remarkable for their symmetry as others are for their deformity.

It would be difficult, with the exception of the callous gibbosity of the hinge, to point out a distinction by which the shells of this genus might be recognised. The forms it exhibits are the suborbicular, reniform, cordate, and rhombic. The posterior slope gapes only in the C. gigas and C. hippopus, (and not always in the latter), but the anterior is universally closed, and the margin crenulated. Almost all the species are equivalve, and many of them are inequilateral. The exterior is usually ribbed or striated longitudinally; it is also scaly, or tuberculated; some specimens are richly foliated or spined; and others are nearly smooth.

There are two formations of the Chama which deserve particular notice, viz. the cordiform and concamerated. The first is exhibited in the C. moltkiana and C. cor, which bear a striking resemblance to a heart, excepting that the valves terminate in a graceful curve towards the hinge. The other is exemplified in the C. concamerata, which has, in the interior of each valve, an ovate chamber.

The species which compose the first division are detached; and those of the second affix themselves to other substances, as rocks, stones, shells, &c.

The colors are extremely various, sometimes elegantly blended. Of the C. arcinella and C. gigas the pink varieties are most valued by collectors.

The most rare species are the C. moltkiana, C. semiorbiculata, and C. concamerata.

The American, Indian, and Atlantic Oceans, and the Mediterranean, Caspian, and Adriatic Seas, produce numerous varieties of the genus.

The Chama is named from the gaping (χήμη) observable in two of its species.

Division I.—*Shell equivalve.*

The C. gigas is the largest shell in the order of testaceæ; the valves sometimes exceed four feet in length, and are of the enormous weight of five hundred pounds. So disproportionate are the varieties of this species, that specimens have been found measuring only half an inch. The cartilage of the hinge, which is of a dull brown color, when cut and polished, is so beautifully irridescent, that it even rivals the opal.

This species occasionally produces large and costly pearls.

FAMILY 1.—*With longitudinal ribs, gaping at the posterior slope.*

Scientific Name.	*Locality.*	*Common Name.*
Gigas	Red Sea, Amboyna, China, New Holland	Giant Clam
Hippopus	East Indies, Amboyna, China	Spotted do

FAMILY 2.—*With longitudinal ribs, posterior slope closed.*

Antiquata	Mediterranean, Gibraltar	Antiquated do
Ajar	Mouth of the Niger, Tranquebar	Ajar do
Trapezia	Norway	Trapeziform do
*Rosea	West Indies	Rose color'd do
Calyculata	East Indies, Mediterranean, Senegal	Variegated do
Pectunculus		Pectuncle do
Satiata		Obsolete do
Rugosa		Rugged do

FAMILY 3.—*Shell longitudinally ribbed, having an ovate chamber in the interior of each valve.*

Concamerata	Cape of Good Hope	Chambered do

FAMILY 4.—*Shell decussated or transversely striated, without ribs.*

Semiorbiculata	Arabia	Brown do
Cordata	Ditto	Heart-shap'd do
Oblonga	Guinea, Pulo Condore	Oblong do
Coralliophaga	East Indies, in coral	Coral do

FAMILY 5.—*Shell tuberculated.*

Plumbea	South Seas	Leaden do

Family 6.—*Heart shaped, umbones prominent and apices spirally recurved.*

Scientific Name.	*Locality.*	*Common Name.*
Cor	Mediterranean, France, Bantry Bay	Heart Clam
Moltkiana	China	Moltkian's do

Division II.—*Shell inequivalve.*

Lazarus	Mediterranean, West Indies, China	Lazarus do
Gryphoides	East & West Indies, Mediterranean, Africa	Gryphus do
Cornuta	Mediterranean	Horned do
Sessilis	W. Indies, Mediterranean	Scaly do
Lamellosa		Lamellar do
Punctata	Guadaloupe	Dotted do
Sinistrorsa	East and West Indies	Reversed do
Arcinella	Ditto, Brazils	Hedgehog do
* Ponderosa	South Seas	Heavy do

ARCA.—ARK.

DESCRIPTION OF PLATE XIII.

Div. I. *Fam.* 1. Fig. 1. A. tortuosa.
Fam. 2. Fig. 4. A. lactea.
Fam. 5. Fig. 2. A. barbata.
Div. II. *Fam.* 2. Fig. 6. A. pectunculus.
Fam. 2. Fig. 7. A. glycymeris.
Fam. 4. Fig. 3. A. granosa.
Div. III. Fig. 5. A. nucleus.

Shell bivalve, equivalve; hinge with numerous sharp teeth, alternately inserted between each other.

THE genus Arca, of which there are forty-one species, is easily distinguished from other genera of Bivalves by the peculiarity of the hinge; which, without any exception, is composed of numerous sharp teeth, alternately inserted between each other. The line of direction of the hinge is in some species perfectly straight, and in others it is arched or curved. These characters form the distinctions of the first and second divisions.

The forms of the Arks vary exceedingly: the elongated is exemplified in the A. tortuosa, A. noæ, and A. barbata, &c.; the suborbicular in the A. glycymeris, &c. (which are nearly smooth on the outside, and have the inner margin generally crenated); and the subcordate, in the A. senilis, &c. which are also somewhat gibbous, and have usually smooth or muricated grooves. The shells of this genus are covered with a brownish or greenish-black epidermis.

Many of the Arks gape at the superior margin; others, on the contrary, are perfectly close. Some have the margin entire, others are crenulated, and several have the slopes prominent and angular, giving the shell an eared appearance; but the anterior slope is far the most prominent.

The A. concamerata, and A. tortuosa, are the most rare species of this genus.

The Arcs are found in the European, Indian, American, and Atlantic oceans; the Baltic, Northern, and Red seas also produce some species.

Division 1.—*With the teeth of the hinge in a straight line.*

Family 1.—*Shell twisted.*

Scientific Name.	*Locality.*	*Common Name.*
Tortuosa ········	Amboyna, Red Sea ·····	Twisted Ark ···

Family 2.—*Shell rhomboidal.*

Noæ ···········	E. & W. Indies, Britain ·	Noah's ···· do ··
Imbricata ·······	W. Indies, G. Britain, Mediterranean, C. G. Hope	Imbricated · do ··
Navicularis ······	St. Domingo ············	Boat ······ do ··
Plicata ··········	Red Sea ················	Plaited ···· do ··
Candida ········	West Indies, Guinea ·····	White ···· do ··
Indica ··········	Coromandel ············	Indian ··· do ··
Lactea ··········	Britain, Mediterranean ··	Milky ···· do ··
Reticulata ······	West Indies ···········	Reticulated do ··

Family 3.—*Shell oblong or transversely ovate.*

Magellanica ·····	Straits of Magellan ·····	Magellanic · do ··
Lacerata ········	East Indies ········ ···	Hairy ····· do ··
Fusca ··········	West Indies, Madagascar	Brown ···· do ··
Bicolorata ·······	Red Sea ················	Party-color'd do
Modiolus ········	Mediterranean, W. Indies	Muscle ···· do ··
Corbula ·········	Nicobar Isles, C. G. Hope	Basket ···· do ··
Senegalensis ·····	Mouth of the Niger ·····	Senegal ··· do ··

Family 4.—*Shell subcordate.*

Scientific Name.	*Locality.*	*Common Name.*
Lævigata	Nicobar Isles	Smooth Ark
Pella	Mediterranean, Spain	Brittle do
Antiquata	E. & W. Indies, Africa	Antiquated do
Granosa	China, East Indies	Grained do
Rhombea	E. & W. Indies, Brazil	Rhomboid do
Senilis	Guinea	Rugose do

Family 5.—*Gaping.*

Complanata	Guinea, Madagascar	Compressed do
Barbata	Mediterranean, Red Sea	Bearded do
Nivea	Red Sea	White do
Cancellata	Curacoa	Cancellated do

Family 6.—*With an ear-shaped appendage in the interior of each valve.*

Concamerata	Nicobar Isles	Chambered do

Division II.—*With the teeth of the hinge in a curved line.*

Family 1.—*Subcordate.*

Campechensis	Campeachy, Carolina	Campeachy do
Equilatera	West Indies	Equilateral do
Angulosa	W. Indies, Brazil, Africa	Angular do

Family 2.—*Suborbicular, margins crenated or plaited.*

Pectunculus	South America, Red Sea	Mottled do
Pectinata	West Indies	Pecten do
Decussata	East & West Indies	Decussated do

Scientific Name.	*Locality.*	*Common Name.*
Pallens	India	Pale Ark
Undata	W. Indies, Mediterranean	Waved do
Glycymeris	Red Sea, Guernsey, Mediterranean, Britain	Orbicular do
Pilosa	Mediterranean, Great Britain, Spain	Downy do
Stellata	Portugal, Africa	Starred do
Scripta	St. Domingo	Lettered do
Nummaria	Mediterranean, Spain	Coin do

FAMILY 3.—*Suborbicular, margin entire.*

Multistriata	Red Sea	Manystriped do

DIVISION III.—*With the teeth of the hinge produced and sharply pointed.*

Nucleus	Britain, Mediterranean, St. Domingo	Silvery do
Rostrata	Norway, Scotland	Beaked do
Minuta	Baltic, Britain	Minute do
Tenuis	Dunbar, Leith Roads	Thin do

OSTREA.—OYSTER, SCALLOP, OR PECTEN.

DESCRIPTION OF PLATE XIV.

DIV. I. —*Fam.* 1. Fig. 2. O. ziczac.
Fam. 4. Fig. 1. O. pleuronectes.
DIV. II.—*Fam.* 1. Fig. 4. O. varia.
Fam. 2. Fig. 6. O. obsoleta.
DIV. IV.—*Fam.* 2. Fig. 5. O. folium.
DIV. V. — Fig. 3. O. isognomon.

Shell bivalve, generally with unequal valves, and slightly eared; hinge without teeth, but furnished with an ovate hollow, and usually with lateral transverse grooves.

THERE are no less than eighty-eight species in this genus, which present considerable variety in beauty and form.

The Ostreæ are divided into several classes: the first and second (which are the most important) comprise the innumerable varieties of escallops or scallop shells, and are distinguished from each other by the proportion of their ears. The first is, for the most part, composed of very elegant species; their form is usually regular, and their surface is adorned with elevated divergent ribs, varying in number from five to forty, which proceed from the tip of the beaks to the extremity of the margins, there terminating in a scalloped outline.

The Scallops are usually equivalve, but a few, as the O. ziczac, O. jacobæa, and others of the same family, have invariably the upper valve flat, and the lower convex.

It is remarkable, that in many of the Scallops the colors of the upper valve are brighter than those of the lower, as may be particularly observed in the O. pleuronectes, which has one valve perfectly white, and the other of a brownish or reddish cast.

The beaks of the Scallops often vary considerably in position; some, as the O. maxima, O. jacobæa, &c. have them placed in the centre; while, in the O. lima, O. glacialis, &c. they are situated obliquely or on one side, which gives the outline of the shell an appearance of slight distortion, occasioned by one margin being straight and flattened, and the other round and inflated.

There is also considerable variation in the size and form of the ears, which in some species are nearly of the same dimensions, but in others are unequal; and some are so small as hardly to be discernible.

The ribs are variously diversified with beautiful colors, and delicate chequer-work; they are usually covered with undulated and transverse striæ, not unfrequently assuming the appearance of elevated scales, as in the O. imbricata and O. dubia. In others the striæ are crenated, as in the O. radula; and some, as the O. nodosa, &c. have large knobs or tubercles raised upon the ribs. The margins of the interior of the Scallops are mostly crenated, and are often beautifully colored.

The hinge is universally without teeth, and is furnished with an ovate hollow; in the vicinity of which are placed lateral transverse grooves, which run in a parallel direction in either valve, but do not lock into each other, as in the genus Arca.

The Scallops have the faculty of leaping out of the water, and are enabled to effect a very rapid motion by opening and closing their valves.

These shells were formerly worn by pilgrims, on their hat or coat, as a mark of their having crossed the sea, for the purpose of paying their devotions at the holy shrine in Palestine: in commemoration of which they are still preserved in the armorial bearings of many families of distinction, whose ancestors had performed that ceremony.

The third and remaining divisions of Ostreæ consist of those which in construction, substance, and coloring, are more nearly allied to the common or eatable Oyster. The species are generally of a more irregular form than the Scallops. They are rough and plaited on the exterior, but the interior is smooth and glossy, and some of them have a steel-blue color or metallic lustre diffused over the surface. The most remarkable species of the third division is the O. malleus; in form it resembles a pick-axe: there are two varieties of it, viz. the white and the black, both of which, when in fine preservation, are highly esteemed, but the white variety is much more rare and valuable. Some species have the appearance of a dried leaf, as the O. folium and others of the fourth division; these are parasitical, and often attach themselves to the roots and stumps of trees.

The hinge of a few of the species, as the O. perna and O. isognomon, has a perpendicular grooved line. Some, as the O. vulsella, &c. gape at the hinge; others terminate in a long beak from the hinge upwards, as the O. cornucopiæ and O. virginica.

The shells composing the third family of the fourth division, have been removed from the genus Mytilus to that of the Ostrea, to which they bear a much stronger resemblance.

Varieties of Ostreæ are found in almost every part of the world, but the most rare in the Indian seas; among which may be mentioned, the varieties of the O. malleus, O. pallium, and O. spondyloides.

"Οστρεον (Oyster) is the name given to this genus by the antient naturalists.

DIVISION I.—*Valves with ears equal.*

FAMILY 1.—*Valves ribbed, upper valve flat.*

Scientific Name.	*Locality.*	*Common Name.*
Maxima	European Seas	Greatest Scallop
Jacobæa	Britain, Mediterranean	Lesser do
Ziczac	West Indies, Red Sea	Zigzag do
Striatula	Indian Ocean	Sixteen rayed do
Minuta	Ditto	Minute do

FAMILY 2.—*Valves ribbed, ears equal.*

Hybrida	Norway	Hybrid do
Radula	Amboyna, China	Rasp do
Imbricata	Red Sea	Imbricated do
Plica	Amboyna, Indian Ocean	Folded do
Hians	Norway	Gaping do

FAMILY 3.—*Valves flattish on one side and gaping.*

Lima	Ceylon, Mediterranean, Red Sea	File do
Fasciata	Britain, West Indies, Cape of Good Hope	Banded do
Bullata	Mediterranean	Swollen do
Fragilis	Nicobar Isles	Brittle do
Scabra	West Indies	Rough do
Glacialis	St. Domingo, Mediterran.	Icy do
Excavata	Norway	Hollow do
* Loscombia	Devonshire	Loscomb's do

FAMILY 4.—*Valves smooth or striated, and not closing.*

Scientific Name.	*Locality.*	*Common Name.*
Pleuronectes	Amboyna, Moluccas	Sole Scallop
Japonica	China, Japan	Japanese do
Magellanica	Magellan	Magellanic do

DIVISION II.—*Valves with unequal ears.*

FAMILY 1.—*Valves ribbed.*

Pes-lutræ		Otter's foot do
Pallium	Amboyna, China	Ducal mantle do
Sanguinolenta	Red Sea	Red spotted do
Palliata	Mediterranean	Variegated do
Nodosa	Africa, E. & W. Indies	Knobbed do
Pes-felis	Africa, Mediterranean	Cat's foot do
Sulcata		Sulcated do
Cinnabarica	Norway, Britain, America	Red do
Senatoria	Moluccas	Senator do
Citrina	Indian Seas	Yellow do
Pellucens	West Indies	Pellucid do
Obliterata	Moluccas, South Europe	Worn do
Sanguinea	W. Indies, South Seas	Scarlet do
Porphyria	Red Sea	Porphyry do
Varia	Britain, Mediterranean	Variegated do
Sauciata	Red Sea	Unequal rayed do
Pusio	Nicobar Isles	Wrinkled do
Sinuosa	Britain	Distorted do
Miniata		Vermilion do
Triradiata	Norway, Denmark	Three rayed do
Solaris	Adriatic	Solar do
Glabra	Mediterranean, Portugal	Glabrous do
Opercularis	Britain, America	Painted do
Lineata	Britain	Line do
Nucleus	East Indies	Kernel do

Scientific Name.	*Locality.*	*Common Name.*
Gibba	South America, Africa, West Indies	Gibbous Scallop
Turgida	East & West Indies	Turgid do
Pyxidata	Malabar	Box-like do
Flavicans	Southern Ocean	Yellow do

FAMILY 2.—*Valves smooth.*

Tigrina	Denmark	Tyger do
Fuci	Denmark	Fucus do
Exotica	Red Sea	Exotic do
Vitrea	Norway	Glassy do
Obsoleta	Britain	Obsolete do
Lævis	Ditto	Smooth do
Proteus	Mediterranean	Variable do

DIVISION III.—*Oblong, linear.*

FAMILY 1.—*With a transverse lobe on each side of the hinge.*

Malleus	Pulo Condore, South Seas, Ceylon	Hammer Oyster

FAMILY 2.—*With a slight beak on one side the hinge.*

Figurata	Nicobar Isles	Figured do

FAMILY 3.—*Rounded at the hinge.*

Regula	Red Sea	Tongue shap'd do

FAMILY 4.—*Valves diverging at the hinge, and the inside vaulted.*

Fornicata	Red Sea	Vaulted do

DIVISION IV.—*Parasitical, or attached to other substances.*

FAMILY 1.—*With one valve produced at the summit.*

Scientific Name.	*Locality.*	*Common Name.*
Cucullata	Africa, Arabia, So. Seas	Hooded Oyster
Virginea	Virginia	Virginian do
Rostrata	Mediterranean	Beaked do
Forskalii	Coast of Egypt	Forskael's do
Cristata		Crested do
Sinensis	China	Chinese do

FAMILY 2.—*With the valves nearly equal.*

Orientalis	Indian Seas	Indian do
Folium	Amboyna, West Indies Mediterranean	Foliated do
Plicata	W. Indies, Mediterranean, Spain	Plaited do
Orbicularis	Indian Ocean	Orbicular do
Arborea	Atlantic & Indian Seas	Tree do
Senegalensis	Senegal	Senegal do

FAMILY 3.—*With the valves strongly plaited longitudinally.*

Crista-galli	Indian Ocean, China	Cock's comb do
Hyotis		Horned do
Frons	West Indies	Crested do

DIVISION V.—*With the hinge composed of transverse furrows in a straight line.*

*Crenatula	Red Sea	Crenated do
Semiaurita	Mediterranean	Half-eared do
Perna	East & West Indies, China	Oblong do
Isognomon	Amboyna	Long-hinged do
Ephippium	Tranquebar, Africa	Saddle do
Alata	West Indies	Winged do
Picta	Red Sea	Painted do
Legumen	Nicobar Isles	Pod-shaped do

Division VI.—*Valves slightly striated, lower valve turning up at its sides, and the cartilage of the hinge placed in a deep narrow groove.*

Scientific Name.	*Locality.*	*Common Name.*
Spondyloidea	Indian Ocean	Spondyloid O.
Ovalis		Oval do

Division VII.—*Valves coarse and rugged, and not comprehended in the former divisions.*

The O. edulis (common Oyster) is too well known for its nutritious and palatable qualities to require description; the old shells are often covered with various adhesions, such as Anomiæ, Serpulæ, Lepades, Sertulariæ, and other marine productions. The interior has generally a pearly appearance, and some specimens have been found containing pearls.

They are to be met with in most seas, occasionally in clusters, affixed to rocks or other substances. In some places they are considered so profitable a branch of commerce, that they are frequently formed into large layers or beds, many miles in extent, in which, by proper attention to their increase and growth, their multiplication becomes immense.

The Roman historians assert that the tables of the great were supplied with this delicacy from the coasts of Britain.

Scientific Name.	*Locality.*	*Common Name.*
Denticulata	Cape of Good Hope	Toothed Oyster
Edulis	British and other Seas	Eatable do

ANOMIA.—ANOMIA OR ANTIQUE LAMP.

DESCRIPTION OF PLATE XV.

DIV. I.—Fig. 6. A. ephippium.
Fig. 5. Variety of do.
Fig. 7. Plug of fig. 6. by which the shell attaches itself to other substances.

DIV. II.—Fig. 2. A. caput-serpentis.
Fig. 3. A. psittacea.
Fig. 4. A. rosea.

DIV. III.—Fig. 1. A. placenta.

Shell bivalve, inequivalve, one of the valves flattish, the other gibbous at the base, with a produced beak, generally curved over the hinge; one of the valves often perforated near the base: hinge with a linear, prominent cicatrix, and a lateral tooth placed within, but in the flat valve, and on the extremity of the margin: two bony rays for the base of the animal.

OF this singular genus of Bivalves, there are thirty species, many of which are extremely rare and valuable.

The Anomiæ differ materially in form: some resemble the shape of an Oyster, as the A. cepa, A. ephippium, &c. all of which have the lower valve flat and perforated; others, again, are imperforated, and nearly orbicular, as the A. placenta, &c.; and some are oblong, as the A. bifida, &c. Many species, particularly the A. caput-serpentis, when seen in profile, resemble the form of an antique lamp; and a few, as the A. psittacea, &c. are very similar to the hooked or curved beak of a parrot.

The shells are usually inequivalve, one of them often flattish, and the other gibbous at the base, terminating in a produced beak, which curves upwards over the hinge. There is frequently a small perforation in the beak, near the base, through which a strong ligament is protruded, whereby the animal affixes itself to different marine substances, as fuci, crabs, spines of echini, and especially to the stars of the Madrepora Prolifera.

The hinge of the Anomia admits of considerable variation; but its most leading character is that of being furnished with a linear prominent cicatrix, and a lateral tooth placed within. On the margin of the flattest valve in many species, are placed two cartilaginous substances, which serve as a base for the animal; but some have only one of these in each valve. The margin is frequently crenated, notched, or toothed, but in many it is perfectly smooth.

The interior of the shells of this genus has often a silvery appearance; the prevailing color of the exterior is a dirty yellow, or dusky white, and some are bright yellow, as the A. electrica, &c. The A. cepa, and the A. sella, have a bronze-like appearance; and the A. capensis and A. sanguinea exhibit a beautiful pink or red coloring. The A. psittacea, and other similar species, have a dingy or olive black color, and a few are found of a shining, jet black.

Some of the Anomiæ are almost smooth; others, on the contrary, are marked with ribs and striæ, which in the A. muricata are covered with scales, and hollow spines of considerable length.

The shells are generally thin and delicate, and usually semitransparent. The A. placenta, when in a young state, becomes so transparent by the process of polishing, that it is frequently used by the ingenious Chinese, as a substitute for window-glass.

The A. sanguinea, A. rosea, A. psittacea, and most of the second division are extremely rare.

The European, Indian, American, and African oceans supply many species of the Anomia, as also do the Mediterranean and Northern seas.

This genus has probably been termed ʼΑνομία (Anomia), from its not possessing any determinate character.

Division I.—*Lower valve flat and perforated.*

Scientific Name.	*Locality.*	*Common Name.*
Craniolaris	Philippine Isles	Cranium Anomia
Turbinata	Norway	Top shaped do
Ephippium	China, Britain, Mediterranean	Orbicular do
Cepa	South Seas, France, Africa, Britain	Onion do
Electrica	France, Mediterranean, Africa	Small amber do
Punctata	Ferroe Islands	Dotted do
Aculeata	Norway, Britain	Prickly valved do
Muricata	Guinea	Muricated do
Undulata	Britain, Norway, Mediterranean	Striated do
Patelliformis	Norway	Limpet shap'd do
Squama	Ditto	Scaly do
Bifida	Mauritius, Mediterranean	Bifid do
Cylindrica	Norway, Britain	Cylindrical do

Division II.—*Having the umbo perforated, and generally a cartilaginous substance in the interior of the shell.*

Scobinata	Mediterranean	Rough do
Aurita		Eared do
Retusa	Norway	Blunt do
Truncata	Ditto, Mediterranean	Truncated do
Capensis	Cape of Good Hope	Cape do

Scientific Name.	*Locality.*	*Common Name.*
Decollata	Mediterranean	Semicircular A.
Pubescens	Norway	Downy do
Sanguinea	Indian Seas	Scarlet rayed do
Caput-serpentis	Norway	Snake's head do
Terebratula	Ditto, Mediterranean	Lamp do
Cranium	Norway	Brittle do
Cruenta	New Zealand	Blood red do
Dorsata	Magellan	Keeled do
Psittacea	Newfoundland, Ind. Seas	Parrot beak do
* Rosea	South Seas	Pink do

Division III.—*Imperforated, and having a truncated triangular hinge.*

Placenta	Tranquebar, China	Cake do
Sella	Ditto, Amboyna	Saddle do

MYTILUS. — MUSCLE.

DESCRIPTION OF PLATE XVI.

DIV. I. —Fig. 2. M. pellucidus.	DIV. VI. *Fam.* 2. Fig. 6. M. hirundo.
DIV. II.—Fig. 5. M. discors.	DIV. VIII. Fig. 3. M. lingua.
DIV. III.—Fig. 1. M. lithophagus.	Fig. 4. Interior of Fig. 3.

Shell bivalve, rough, usually affixed by a byssus or beard of silky filaments; hinge mostly without teeth, with generally a subulate excavated longitudinal line.

OF the genus Mytilus forty-six species are enumerated; though some of these are rather indistinct in character, yet the greatest proportion of them bear a near alliance to the general form and habits of the common or eatable Muscle.

The hinge of the Mytilus is usually without teeth, having generally in their place a subulate excavated line. Some, however, have small denticulations, with alternate grooves, varying in different species from ten to fifty; in the M. niger, which has the greatest number, they amount to nearly one hundred.

A particular class possesses the faculty of penetrating coral and calcareous rocks; from which, like the Pholas, the shell cannot be extracted without breaking the substance in which it is imbedded. Of this description are the M. lithophagus, M. rugosa, &c. the latter of which is sometimes found in lakes, as well as the sea.

There are some species which are frequently mistaken as belonging to the genus Mya; such as the M. latus, M. discors, and M. angulatus; but, by a careful inspection of the hinge, the error will soon be discovered.

Muscles differ greatly in external appearance, some being perfectly smooth, and beautifully marbled and variegated with delicate colors; others elegantly radiated with purple and white; and a third class being of one color only, as black, blue, green, yellow, or brown, and coarsely ribbed and grained with minute tubercles. In the greater part the coloring is confined to the epidermis; when this is removed, and the shell polished, so different a surface is presented, that an adept would be puzzled to decide to what species it should be referred. In some specimens the epidermis is shaggy or bearded.

Many exhibit internally a pearly appearance, and some, when uncoated and polished, display considerable brilliancy. The M. margaritiferus is celebrated for its iridescent colors, and is, moreover, valued for the beautiful and costly pearls it produces. The young shells of this species are sometimes so different to the adults in appearance, that they can scarcely be recognised as being the same.

The M. edulis is found in immense beds or layers, and invariably affixes itself to other bodies by means of its silky byssus.

The M. cygneus and M. anatinus, (both fresh-water species), frequently become the prey of birds: when the shell is too hard to be penetrated by their beaks, they mount with it to a considerable height, and by letting it fall, are enabled to pick out the fish from the broken shell.

The M. discrepans, M. lingua, and M. arborescens may be particularised as rare species.

The Indian, Atlantic, American, and Northern oceans produce many species; some are also found in New Zealand, and in the Red, Mediterranean, and Russian seas.

Μυτίλος (Mytilus) is the name given to this genus by the antient naturalists.

Division I.—*Shell oblong, umbones or apices terminal and pointed, slightly angulated at one side, and rounded at the lower margin.*

Scientific Name.	*Locality.*	*Common Name.*
Edulis	Britain, Baltic, Indian seas	Eatable Muscle
Pellucidus	Britain	Pellucid .. do ..
Vulgaris	West Indies	Small .... do ..
Bilocularis	Indian Ocean, Nicobar..	Two-celled do ..
Ungulatus	West Indies	Ox-hoof .. do ..
Exustus	Jamaica, Tranquebar	Rose color'd do ..
Striatulus	Northern Ocean	Striated ... do ..
Niger	West Coast of Africa	Black .... do ..
Latus	New Holland, China	Broad .... do ..
Perna	Straits of Magellan......	Lengthen'd do ..
Smaragdinus	Tranquebar, Guinea	Green .... do ..
Confusus	....	Wedge shap'd do
Bidens	America, South Seas, Mediterranean, Magellan	Double tooth'd do
Puniceus	Goree	Ventricose do ..
Demissus	Carolina, North America	Silvery .... do ..
Ruber	Southern Ocean	Red ...... do ..

Division II.—*Transversely ovate, with longitudinal ribs on each side, and plain or striated in the middle.*

Discrepans	Baltic, Britain	Compartment do
Discors	Norway, Britain	Discordant do ..
Impactus	New Zealand	Woolcoated do ..

DIVISION III.—*Found burrowed in rocks, corals, &c.*

Scientific Name.	*Locality.*	*Common Name.*
Lithophagus	Indian, European, & Mediterranean Seas	Burrowing M.
Aristatus	Senegal	Crossbeak'd do
Ambiguus	Weymouth, Coast of Devonshire	Ambiguous do
Rugosus	Britain, Norway	Rugged do
Coralliophagus	East & West Indies	Coral-piercer do
Præcisus	Britain	Truncated do
Fuscus	East Indies	Brown do
Plicatus	Nicobar Isles	Plaited do
Niveus	Ditto	Snow white do
Arborescens	China, St. Domingo	Dendritical do

DIVISION IV.—*Shell oblong, gibbous, with the posterior side dilated and elevated above the hinge, apex rounded.*

Modiolus	Britain, W. Indies, Africa	Great do

DIVISION V.—*Only found in fresh water.*

Cygneus	Europe	Swan do
Fluviatilis	North America	River do
Stagnalis	Lake of Schwansee	Stagnant do
Anatinus	Europe	Duck do
Fucatus	Wiltshire, North America	Avon do
Dubius	Senegal, China	Doubtful do
*Americanus	North America	American do

Division VI.—*Eared.*

Family 1.—*Valves rather compressed.*

Scientific Name.	*Locality.*	*Common Name.*
Margaritiferus	Amboyna, China	Pearl Muscle
Radiatus	Tranquebar	Rayed do
Unguis	Mediterranean	Nail do

Family 2.—*With one valve more convex than the other.*

Hirundo	West Indies, Ceylon, Mauritius, Britain	Swallow do
Morio	Red Sea	Mulberry do
Ala-corvi	South Seas	Crow's wing do

Division VII.—*Shell suborbicular, longitudinally striated, and margin crenulated.*

Faba	Greenland	Bean do

Division VIII.—*Somewhat tongue-shaped, apices acute.*

Lingua	Amboyna	Tongue do
Camellii	Japan	Camellius' do

PINNA.—FIN SHELL, NACRE, OR SEA-WING.

DESCRIPTION OF PLATE XVII.

Div. I.—Fig. 1. P. pectinata. Fig. 2. P. cancellata.

Shell bivalve, fragile, upright, gaping at one end, and furnished with a byssus; hinge without teeth, the valves united into one.

THE number of species contained in this genus is twenty-one; they are in general very brittle and fragile, and some are so similar to each other that they are with difficulty distinguished.

The usual form of the Pinnæ resembles that of the larger species of Muscles, being long and tapering, narrow at the beaks, and gradually expanding to a considerable breadth towards the opposite extremity: in a few instances the form is rather compressed, and sometimes subangular. They universally gape at one end.

The hinge is invariably without teeth, the valves, nevertheless, adhere so closely in the region of the beaks, that they appear as if united together.

The Pinnæ are usually covered with longitudinal ribs, and elevated transverse striæ, often terminating in imbricated scales, and prominent tubular spines, as may be particularly observed in the P. rudis and P. muricata, but in the younger shells of these two species, the spines appear only as minute prickles; in other specimens, as the P. saccata, &c. the ribs are less articulated, and perfectly free from scales or spines.

Some of the young shells of this genus are less than an inch in length, but the adults often exceed three feet.

The Pinnæ admit of some variation in color, though they usually have a horn-like appearance, which is often shaded with a steel-blue or copper-colored gloss.

This genus produces, in large quantities, a very fine sort of byssus or beard, which the Italians frequently fabricate into various articles of wearing apparel, vieing in appearance with the finest silk.

The Pinnæ are usually found in smooth water and bays; in some places they are esteemed excellent and luxurious food. The Mediterranean produces a great number; they are also to be found in the Indian, American, Atlantic, and European oceans, as well as in the Adriatic and Red Seas.

Πίννα (Pinna), like the preceding genus, admits only of conjectural definition.

DIVISION I.—*Shells longitudinally ribbed.*

Scientific Name.	*Locality.*	*Common Name.*
Rudis	Mediterranean, Southern and Asiatic Seas	Rough Pinna
Pectinata	Coromandel, Britain	Spiny ribb'd do
Inflata	Nicobar Isles	Inflated do
Carnea	Dorsetshire, West Indies	Flesh colored do
Rigida	Curacoa	Rigid do
Nobilis	Mediterranean, Adriatic	Great do
Muricata	E. Indies, Mediterranean	Prickly do
Adusta	South Seas, Manilla	Pear shap'd do
Vexillum	East Indies	Banner do
Squamosa	Mediterranean	Scaly do
Vitrea	East Indies	Brittle do
Papyracea	Ditto	Paper do

Scientific Name.	*Locality.*	*Common Name.*
Saccata	Indian Ocean	Satchel Pinna
* Cancellata	Ceylon	Cancellated do

Division II.—*Shell nearly smooth and plain.*

Nigra	South Seas, Amboyna	Black do
Ingens	Hebrides	Scotch do
Rotundata	Mediterranean	Giant do
Bicolor	Red Sea	Two color'd do
Incurva	Amboyna	Incurved do
Digitiformis	Indian Ocean	Finger shap'd do
Lobata	Ditto	Lobed do

ORDER III.

Univalves.

I. SHELL OF ONE PART ONLY, AND HAVING A REGULAR SPIRE.

ARGONAUTA.—PAPER SAILOR.

DESCRIPTION OF PLATE XVIII.

DIV. I.—*Fam.* 1. Fig. 1. A. argo. *Fam.* 1. Fig. 2. A. tuberculata.

Shell univalve, spiral, involute, membranaceous, one-celled.

THE shells of this genus are remarkable for their excessive thinness and brittleness, and are perhaps surpassed by none in the delicacy and elegance of their structure. The form resembles that of a scroll, with a very large aperture. The surface is ornamented with numerous canaliculated grooves, proceeding from the summit to the outer margin, which is in general bicarinated; but there is one species, the A. vitrea, in which the margin is single, and the summit exteriorly curved.

The species of the first division have the keel toothed, which is not the case with those of the second, and the distinction of the third division is, that the umbilicus is perforated.

The color of the shells is mostly blueish, or dingy white, but the keel is often tinged with a brownish hue.

The size of the Argonautæ differs greatly: the A. argo often attains twelve inches in width; and the A. cornu and A. arctica seldom exceed four lines in diameter.

The A. vitrea is the most rare, and one of the most beautiful species of the genus.

The Mediterranean and Indian seas produce some varieties; others are from the Cape of Good Hope, and some inhabit the Atlantic, Northern, and Greenland seas.

Argonauta is derived from 'Αργοναύτης a name given to the companions of Jason in his expedition to recover the golden fleece.

Division I.—*Keel toothed.*

Family 1.—*Summit interiorly curved.*

Scientific Name.	*Locality.*	*Common Name.*
Argo	Cape of Good Hope	Oriental Argonaut
Tuberculata	South Seas, Brazils	Tuberculated do
Hians	China, Red Sea	Gaping do
Gondola	Mozambique, Mauritius	Boat do
Haustrum	East Indies	Bucket do

Family 2.—*Summit exteriorly curved.*

Vitrea	Amboyna	Brittle do

Division II.—*Keel not toothed.*

Cymbium	Mediterranean	Minute do
Cornu	Cape of Good Hope	Horn shap'd do

Division III.—*Umbilicus perforated.*

Arctica	Greenland	Arctic do

NAUTILUS.—PEARLY SAILOR.

DESCRIPTION OF PLATE XIX.

Div. I.—Fig. 1. N. scrobiculatus Div. I.—Fig. 2. N. pompilius.
Div. II.—Fig. 3. N. spirula.

Shell univalve, divided into several chambers, communicating with each other by an aperture.

THE species of the Nautilus strongly resemble each other in structure, and have usually a dingy white color, with yellow markings. The most striking character of the genus is, that the whorls are divided into separate compartments or chambers, which are connected by a slender syphon, running spirally through the shell. The syphon is sometimes central and sometimes contiguous to the surface.

The general form of the Nautilus is spiral or scroll-like, which is particularly exemplified in the shells of the first and second division: but in the third, the species are conical or dentiform, and bear some resemblance to the Dentalia. The whorls are contiguous in the species of the first division, and detached or separated in those of the second and third.

The N. pompilius, when bisected, displays the pearly concamerations for which the genus is celebrated. Fine specimens of this species are often converted by the inhabitants of the East into drinking cups, on the surface of which they engrave various devices and ornaments; they also frequently remove the outer coating entirely, by which the beautiful pearly appearance of the shell becomes visible.

The Nautili differ exceedingly in size; some are so small that they can only be defined by the microscope, while others are nearly a foot in diameter.

The N. scrobiculatus is the most rare species of this genus.

Some species of the Nautilus are found adhering to coral rocks, particularly the N. siphunculus, which is often brought from the coral reefs on the Sicilian shores. The American and Indian Oceans, as well as the Mediterranean, Adriatic, and Red Seas, produce species of Nautili; but the greater number are found on the European and British coasts. The species from the last mentioned locality are minute.

This and the preceding genus, from a similarity in form, were originally included under the same generic name Ναυτίλος, (sailor), so called by the early naturalists, from the nautical skill which the animal of the Argonauta was supposed to exert in directing its fragile bark. The great difference in internal structure induced subsequent conchologists to separate the genera.

In the following enumeration of the species of the genus, we have omitted the names of those which we have not found figured in any author. They are, with few exceptions, microscopic shells.

Division I.—*Spiral, with contiguous whorls.*

Scientific Name.	*Locality.*	*Common Name.*
Pompilius ·······	Africa, Amboyna, China, India ·················	Gt. chambered N.
Scrobiculatus····	New Guinea ···········	Sunken spire do ··
Lacustris·······	Kent, Denmark ········	Lake······ do ··

Minute or microscopic Shells.

Scientific Name.	*Locality.*	*Common Name.*
Calcar	Adriatic	Spur Nautilus
Rotatus	Britain, Shores of Rimini	Wheel do
Lævigatulus	Sandwich, Kent	Smooth do
Depressulus	Reculver, Kent	Compressed do
Crispus	Britain, Mediterranean	Keel-edged do
Beccarii	Britain, S. Seas, Adriatic	Beccaria's do
Balthicus	Baltic	Baltic do
Crassulus	Reculver, Kent	Strong do
Umbilicatulus	Kent, Devonshire	Umbilicated do
Lobatulus	Britain, Norway	Lobed do
Rugosus	Southern Ocean	Rugged do
Umbilicatus	Croatia	Oblique jointed do

DIVISION II.—*Spiral, with detached whorls.*

Spirula	E. & W. Indies, America	Ram's horn do

Minute Shells.

Spengleri	India	Spengler's do
Unguiculatus	Ditto	Nail-shap'd do

DIVISION III. *Elongated and almost straight.*

Minute.

Semilituus	Kent, Shores of Liburni	Halfcrozier do
Lituus	Red Sea	Crozier do
Carinatulus	Kent	Keeled do
Obliquus	Britain, Mediterranean	Obliquely striated
Raphanistrum	Mediterranean	Twelve striated
Raphanus	Adriatic, Mediterranean	Seventeen striated

Scientific Name.	*Locality.*	*Common Name.*
Costatus	Kent	Ribbed Nautilus
Granum	Mediterranean	Eight striated do
Radicula	Kent, Adriatic	Bulbous jointed do
Spinulosus	Britain	Spinous jointed
Sub-arcuatus	Sandwich	Sub-arcuated do
Bicarinatus	Ditto	Bicarinated do
Fascia	Adriatic	Banded do
Inæqualis	Red Sea	Unequal do
Siphunculus	Sicily	Piped do
Legumen	Britain, Adriatic	Pod do
Linearis	Dunbar	Linear do
Rectus	Sandwich	Straight do

CONUS.—Cone.

DESCRIPTION OF PLATE XX.

Div. I. *Fam.* 1. Fig. 1. C. imperialis.
Fam. 2. Fig. 2. C. monile.
Fam. 2. Fig. 3. C. generalis.
Div. II. *Fam.* 1. Fig. 5. C. tæniatus.
Div. II. *Fam.* 1. Fig. 6. C. ebræus.
Div. III. Fig. 4. C. striatus.
Fig. 7. C. terebellum.
Div. IV. Fig. 8. C. tulipa.

Shell univalve, convolute, turbinate; aperture effuse, longitudinal, linear, without teeth, entire at the base; pillar smooth.

THERE is, perhaps, no other genus which holds so important a station in collections as the Cones, a distinction to which it is eminently entitled, from the matchless beauty and endless variety of the species.

The numerous species of the Cones are so similar in form, that they have been arranged only into four divisions. Those which have a subtruncated base, as the C. marmoreus and C. imperialis, constitute the first division. The C. betulinus may be instanced as an example of the shells of the second division, which are pyriform and rounded at the base, and have a thick structure. The third division comprises those species which are elongated, and have an acute and prominent spire, as the C. generalis, &c. The shells of the fourth division are easily distinguished by their ventricose shape and wide aperture.

Beneath the epidermis the Cones have in general a smooth surface, and in most instances a high natural polish; there are, however, some species, as the C. granulatus, &c. which are covered with granulated transverse striæ, and even globular tubercles.

The colors and markings of the Cones are extremely beautiful, and much diversified: in some species they are elegantly disposed in dots, stripes, bands, and reticulations; and in others, delicately blended in cloudings, veins, and marbling.

The most beautiful and rare species of this genus are the C. gloria-maris, C. cedo-nulli, C. thomæ, the varieties of C. ammiralis, C. aurisiacus and others, which vary in value from five to twenty guineas.

The Conus derives its name from the resemblance which its species bear to the form of a Cone (Κῶνος)

The greater number of species come from the Indian Ocean; some are found on the shores of Africa and America, and others in the South Seas.

Division I.—*Spire subtruncated.*

Family 1.—*Spire coronated.*

Scientific Name.	*Locality.*	*Common Name.*
Marmoreus	East and West Indies, Asiatic Ocean	Marbled Cone
Nocturnus	Amboyna, Moluccas	Night do
Nicobaricus	East Indian Seas	Nicobar do
Arachnoideus	Coromandel, Tranquebar	Spider-web do
Zonatus	Asiatic Ocean	Zoned do
Imperialis	Amboyna, So. Seas, Mauritius	Imperial do
Fuscatus	South Seas, Mauritius, Tranquebar	Clouded do
Candidus		White do

FAMILY 2.—*Spire plain or channelled.*

Scientific Name.	*Locality.*	*Common Name.*
Literatus	Amboyna, S. Seas, Africa	Lettered Cone
Eburneus	East Indian Ocean	Square spotted do
Tessellatus	Batavia, Africa, Mauritius	Mosaic do
Generalis	Amboyna, Mauritius, C. of Good Hope	General do
Monile	Nicobar Isles	Necklace do
Canaliculatus	Ceylon, Nicobar Isles	Grooved do
Radiatus	West Indies	Radiated do
Virgo	Africa, Amboyna, Mauritius	Virgin do
Capitaneus	Amboyna, Mauritius, East Indies	Captain do
Chemnitzii	Ceylon	Chemnitz's do
Mustelinus	Batavia, Philippines	Weasel do
Leopardus	E. & W. Indies, Sumatra	Leopard do
Hyæna	New Zealand, Africa	Hyena do
Miles	Amboyna, Mauritius	Soldier do
Centurio	St. Domingo, Martinico	Centurion do
Fusiformis	California	Fusiform do
Spurius	East and West Indies	Spurious do
Leoninus	Amboyna, West Indies, Mexico	Lion do
Characteristicus	St. Bartholomew	Arabic do
Cærulescens	St. Thomas	Blue do
* Zebra	New Guinea	Zebra do

DIVISION II.—*Pyriform, rounded at the base.*

FAMILY 1.—*Spire coronated.*

Cedo-nulli	Caraccas, South America	Matchless do
Aurantius	Philippines	Orange do
Leucosticus	West Indies, Mauritius	Veined do
Tæniatus	Africa, China, N. America	American flag do
Musicus	China	Music do

Scientific Name.	*Locality.*	*Common Name.*
Miliaris	China	Millet Cone
Luzonicus	Philippines	Spotted velvet do
Lividus	East & West Indies, Cape of Good Hope	Livid do
Mus	American Ocean, West Indies	Mouse do
Distans	South Seas, Nicobar	Wide lined do
Caledonicus	New Caledonia	Caledonian do
Costatus	South Seas, China	Ribbed do
Ebræus	East Indies, Amboyna, China	Hebrew do
Princeps	Asiatic Ocean	Persian robe do
Arenatus	Batavia, Mauritius, Cape of Good Hope	Sandy do
Pulicarius	South Seas, Moluccas	Flea spot do
Obesus	Madagascar, China	Fat do
Piperatus	Ind. Seas, African Ocean	Punctured do
Varius	Mauritius, West Indies	Various do
Coronatus	East Indian Seas	Coronated do
Barbadensis	Barbadoes, West Indies	Barbadoes do
Roseus	Antilles	Rose-color'd do
Coccineus	St. Domingo, Martinico	Scarlet do
Citrinus	Curaçoa, Straits of Magellan	Citron color do
Sponsalis	S. Seas, Isle of St. George	Pink spotted do
Puncturatus	Botany Bay	Groove punctured
Ceylonensis	Ceylon	Ceylonese do
Exiguus	Asiatic Seas	Narrow do
Pusillus	Guinea	Dwarf do
Lamellosus	Ceylon	Plaited spire do
Sulcatus	West Indian Seas	Grooved do

FAMILY 2.—*Spire plain or channelled*

Janus	East Indian Ocean	Janus do
Guinaicus	Guinea	Guinea do
Fulmineus	Africa, New Zealand	Lightning do
Lorenzianus	E. Indian Seas, Africa	Lorenza's do

Scientific Name.	*Locality.*	*Common Name.*
Amadis	Bantam, China, Ceylon	Amadis Cone
Acuminatus	Amboyna, Red Sea, Moluccas	Sharp pointed do
Thomæ	Isle of Oma, Asiatic Ocean	St. Oma's do
Ammiralis	Amboyna, Ceylon, Ceram	Admiral do
Archithalassus	Indian Ocean, Amboyna	Granulated do
Vitulinus	West Indies, Mauritius	Spotted do
Planorbis	Guinea	Depressed spire do
Senator	Guinea	Senator do
Catus	St. Domingo, C. G. Hope	Cat do
Nobilis	Amboyna, China, Moluccas	Noble do
Siamensis	China, Siam	Siamese do
Genuanus	Batavia, Senegal, E. Indies	Gartered do
Papilionaceus	S. Seas, Mauritius, West Indies	Butterfly's wing
Fluctifer	Java, Mozambique	Prometheus do
Glaucus	Amboyna, Moluccas	Brownish do
Suratensis	East Indian Ocean	Surat do
Monachus	Mediterranean, Mauritius, China	Monk do
Ranunculus	American Ocean	Ranunculus do
Anemone	New Holland	Anemone do
Achatinus	Batavia, Mauritius	Tulip do
Rusticus	Amboyna	Rustic do
Nisus	East Indian Ocean	Brown throated do
Coffeæ	American Seas	Coffee do
Vittatus	Asiatic Ocean	Ribbon do
Classiarius	Ditto	Sailor do
Mercator	Senegal, Mauritius, Cape of Good Hope	Network do
Betulinus	East Indies, Amboyna, Mauritius	Birch bark do
Figulinus	Isle of France, Nicobar Isles	Brown banded do
* Inornatus	Sumatra	Naked do
Quercinus	South Seas, Cape of Good Hope, Madagascar	Oak do
Lineatus	Mauritius, Philippines	Lineated do
Eques	New Zealand	Equestrian do
Ermineus	E. Indies, Mauritius, China	Ermine do

Scientific Name.	*Locality.*	*Common Name.*
Vexillum	Batavia, Malabar	Flag Cone
Testudinarius	Surinam, W. Indies, Guinea	Turtle do
Venulatus	Manilla, American Seas	Veined do
Namocanus	Isle of Namoca, S. Seas	Ashwood do
Stercus-muscarum	Amboyna, Cape of Good Hope, Ceylon	Fly-spotted do
Cancellatus	South Seas	Cancellated do
Portoricanus	Porto Rico, American Seas	Porto Rico do
Tinianus	Isle of Tinian, South Seas	Red color'd do
Taitensis	Otaheite	Blackish violet do
Scabriusculus	Guinea, Sierra Leone	Scabrous do
Rattus	Coast of America	Rat do
Jamaicensis	Jamaica	Three banded do
Mediterraneus	Algiers, Mediterranean	Olive clouded do
Puncticulatus	St. Domingo, Martinico	Red dotted do
Mauritianus	Coast of Africa	Mauritian do
Verrucosus	Africa, Cape of G. Hope	Warted do
Columba	Mauritius	Dove do
Madurensis	Asiatic Ocean	Green cross do
Jaspideus	St. Domingo, Martinico	Jasper do
Japonicus	Japan	Orange mottled
Mindanus	Philippine Isles	White mottled do
Festivus	Molucca Isles	Festive do
* Reticulatus	South Seas	Netted do
* Ferruginosus	Ditto	Iron color'd do

Division III.—*Elongated and rounded at the base.*

Clavus	East Indies, Guinea	Yellow veined do
* Gradatus	California	Stepped do
Aureus	China	Golden do
Circumcisus	East Indian Ocean	Truncated do
Terebellum	Mauritius, Madagascar	Chocolate do
Australis	New South Wales, China	Southern do
Lævis	Africa	Smooth do
Ochroleucus	American Seas	Yellowish do
Strigatus	East Indian Seas	Pale violet do
Mitratus	Ditto	Mitre do

Scientific Name.	*Locality.*	*Common Name.*
Glans	Mauritius, Africa, Moluccas	Acorn Cone
Tenellus	Moluccas	Delicate do
Nussatella	Nussatella	Nussatella do
Granulatus	Africa, America, Brazils	Grained do
Fusus	West Indies	Spindle do
Aurisiacus	Amboyna, Ceram	Orange do
Terebra	Batavia, Mauritius	Whimble do
Raphanus	Asiatic Ocean	Radish do
Adansoni	Senegal	Adanson's do
Augur	Ceylon, Amboyna	Augur do
Magus	Mauritius, Amboyna	Magician do
Striatus	South Seas, Mauritius, East & West Indies	Striated do
Gubernator	Asiatic Ocean	Pilot do
Gloria-maris	Japan	Glory of the sea
Pyramidalis	Torrid Zone	Pyramid do
Textile	South Seas, China, Africa	Embroidered do
Abbas	Mauritius	Abbot do
Archiepiscopus	East Indian Seas	Archbishop do
Canonicus	Ditto	Canonical do
Episcopus	Ditto	Bishop do
Prælatus	Ditto	Prelate do
Pannaceus	Amboyna, China	Plumose do
Rubiginosus	Amboyna, Philippines	Orange brown do
Omaria	New Guinea, Madagascar	Pearl brown Cone
Aulicus	Mauritius, Amboyna, Ceylon, China	Brunette do
Elongatus	Guinea	Lengthened do

DIVISION IV.—*Ventricose with a wide aperture.*

Spectrum	Amboyna, China, New Guinea	Spectre do
Informis	New Zealand, American Ocean	Misshapen do

Scientific Name.	*Locality.*	*Common Name.*
Ventricosus	American Ocean, Mediterranean	Ventricose Cone
Bullatus	Moluccas, China	Bubble do
Timorensis	East Indian Ocean	Timor do
Nimbosus	Ditto	Rainy do
Tulipa	E. & W. Indies, Africa	Tulip do
Geographicus	Amboyna	Geographic do

CYPRÆA.—Cowry.

DESCRIPTION OF PLATE XXI.

Div. I.—Fig. 2. C. exanthema.
Fig. 3. Do. in a young state.
Div. II.—Fig. 1. C. pantherina.
Div. III.—Fig. 4. C. ziczac.
Div. IV.—Fig. 5. C. cribraria.
Div. VI.—*Fam.* 1. Fig. 6. C. nucleus.

Shell univalve, involute, subovate, smooth, obtuse at each end; aperture effuse at each end, linear, extending the whole length of the shell, and toothed on each side.

THIS genus possesses one grand mark of distinction, the shells having, when arrived at maturity, the two lips always crenated with strong articulated teeth. The species differ little in formation, but their colorings and markings are very dissimilar.

There are six divisions in the Cypræa: the first includes those in which the spire is not quite concealed, as in the C. exanthema, C. arabica, &c. Those, on the contrary, which have no manifest spire, as the C. caput-serpentis, C. mauritiana, &c. form the second division. The third is composed of the umbilicated or perforated varieties; such as the C. ziczac, C. asellus, &c. Those species which are marginated, as the C. moneta, C. annulus, &c. form the fourth class. The shells of the fifth division have their surfaces covered with ribs, wrinkles, or tuberculations; and the sixth consists of those which are beaked at the extremities.

The Cowries are in general smooth, glossy shells, of great brilliancy of color, and elegantly marked with dots, ziczac lines, undulations, stripes, &c. The C. aurantium,

C. mappa, C. argus, and the C. testudinaria, may be adduced as examples of the beauty and variety of coloring for which the genus is remarkable. The C. nucleus, C. cicercula, and C. staphylæa, are, however, exceptions, as they have but little coloring, and are besides extremely rough, owing to the small globular tuberculations or warts, with which their surfaces are covered.

One of the largest and most valuable Cowries is the C. aurantium, which is found, though very rarely, at the Friendly Isles. The most rare of the smaller species are the C. rubiginosa, C. pustulata, and C. aperta.

The greater number of the Cypræœ are produced in the Indian Ocean; many, however, are found in the American, African, and Mediterranean seas; and some also in the South seas.

This genus has been named after the Cyprian Goddess (Κύπριος), on account of the great beauty of its species.

Division I.—*Spire not quite concealed.*

Scientific Name.	*Locality.*	*Common Name.*
Exanthema	American Ocean, West Indies	False Argus
Mappa	Africa, Amboyna	Map Cowry
Arabica	Amboyna, Madagascar	Arabic do
Histrio	South Seas, Indian Ocean	Harlequin do
Argus	Amboyna, Guinea, West Indies	Argus do
Testudinaria	Persian Gulf, Amboyna	Tortoiseshell do
Stercoraria	Coast of Guinea	Livid do
Aurora	South Seas	Orange do
Carneola	Amboyna, East Indies	Flesh color'd do

Scientific Name.	*Locality.*	*Common Name.*
Talpa	Asia, Madagascar	Mole Cowry
Lurida	Mediterranean, Senegal, Brazils	Lurid do
Vanelli	Barbadoes, Jamaica	Saffron throated
Lota	Sicilian Seas	White do
Guttata		Dotted do
Sanguinolenta		Sanguine do
Undata	Mauritius	Waved do
Teres		Long do
*Aperta		Wide-mouth'd do

Division II.—*Obtuse, spire quite concealed.*

Achatina	South Seas, New Holland	Agate do
Caput-serpentis	Ditto, Mauritius, E. Indies	Snake's head do
Mauritiana	Persian Gulf, Mauritius	Blackish brown do
Vitellus	Amboyna, South Seas	White spotted do
Mus	Mediterranean, Africa	Mouse do
Tigris	R. Sea, S. Seas, Amboyna	Tiger do
Pantherina	Red Sea	Panther do
Lynx	Mauritius, Madagascar	Lynx do
Felina	Maldives	Feline do
Cinerea	Barbadoes, Jamaica	Ash-color'd do
Isabella	Amboyna, Mauritius, Madagascar	Yellow do
Cylindrica		Cylindric do
Indica	Eastern Ocean	Green spotted do

Division III.—*Umbilicated.*

Onyx	Coast of Asia	Onyx do
Subflava		Yellowish do
Clandestina		Clandestine do

Scientific Name.	*Locality.*	*Common Name.*
Succincta		Banded Cowry
Ziczac	East Indian Ocean	Ziczac do
Zonata	Coast of Guinea	Zoned do
Hirundo	Maldives, Antilles	Swallow do
Ursellus		Brown spot do
Lutea		Yellow do
Asellus	Amboyna, Senegal, Maldives	Three banded do
Errones	East Indies	Olive mottled do
Pyrum	Sicily, Africa	Pear do
Punctata		Dotted do

Division IV.—*With the margin thickened.*

The C. moneta of this division is collected by the negro women of the Indian Islands, three days before and after full-moon, and transported into Bengal, Siam, and Africa; where it is used by the natives in commerce, as a substitute for money.

Scientific Name.	*Locality.*	*Common Name.*
Moneta	Indian Islands	Money Cowry
Annulus	Amboyna, East Indies	Annular do
Caurica	Madagascar, Amboyna	Thick edg'd do
Dracæna	Amboyna	Angular marked
Cruenta	Ditto	Ferruginous do
Cribraria	China	Umbilicated do
Erosa	Mauritius, Bengal	Bordered do
Flaveola		Ochreous do
Spurca	Mediterranean	Narrow margin'd
Stolida	Eastern Ocean	Square spotted do
Tabescens	Amboyna, Madagascar	Slender do
Helvola	Ditto, Maldives	Star do
Angustata		Narrow do

Scientific Name.	*Locality.*	*Common Name.*
Ocellata	Indian Ocean, China	Eyed Cowry
*Albuginosa	California	Bird's eye do
Poraria	Jamaica	White spot do
Gangranosa	China	Gangrene do
Fimbriata		Fimbriated do
Tessellata		Mosaic do

Division V.—*With the backs ribbed, wrinkled, or tuberculated.*

Oniscus	Adriatic Sea	Woodlouse do
Sulcata	Jamaica, Barbadoes	Sulcated do
Europea	Britain, North of Europe	European do
Madagascariensis	Madagascar	Madagascar do
Pustulata	Acapulca, China	Pustulated do

Division VI.—*Beaked at the extremities.*

Family 1.—*Having raised dots on the back.*

Nucleus	East Indian Ocean	Wrinkled do
Staphylea	Ditto	Groove back'd do
Cicercula	Mediterranean, Amboyna, China	Vetch do

Family 2.—*With the back smooth.*

Margarita	Amboyna	Pearl do
Globulus	Ditto, Asia	Globular do

BULLA.—DIPPER OR BUBBLE.

DESCRIPTION OF PLATE XXII.

Div. I.—Fig. 3. B. verrucosa.
Div. II.—Fig. 1. B. volva.
Fig. 2. B. gibbosa.
Div. III.—*Fam.* 2. Fig. 5. B. amplustre.
Div. IV.—Fig. 7. B. ficus.
Div. V.—Fig. 6. B. virginea.
Div. VI.—Fig. 4. B. terebellum.

Shell univalve, convolute, unarmed with teeth; aperture a little straitened, oblong, longitudinal, very entire at the base; pillar oblique, smooth.

THIS genus is so nearly allied in form to the preceding, that much caution is necessary in order to prevent confusion in its classification; so great indeed is the difficulty of distinguishing the young shells of the Bulla and Cypræa, that the two genera have been intermixed by some authors.

This difficulty may, however, in a great measure be removed, by an attention to one very striking character of the Bulla, that the pillar lip of the shell, in every state of its growth, is invariably free from the slightest denticulations; while, in the Cypræa, both the pillar and outer lips are crenated with strong articulated or prominent teeth. This distinction constitutes the character of the first of the divisions, into which the genus is separated. The other divisions are in general distinguished by the form, of which the Bulla presents a considerable variety. The second division comprehends the species which are elongated: in these the length is increased by two produced beaks, conspicuously observable in the B. volva. In the third division the shells are less beaked, and more gibbous; the C. naucum and C. ampulla may be mentioned as illustrative examples: they are without teeth or spire, and the greater part umbilicated. The species of the fourth division are pyriform; of which the B. ficus and B. rapa strongly resemble some of the Murices. The fifth division being composed entirely of land shells, and the animal inhabiting them being oviparous, they might with greater propriety be classed with the genus Helix. The B. terebellum, the only species of the sixth division, is a remarkable exception to the general form of the Bulla; it is a long and slender shell, and not unlike a lengthened olive.

Some species of this genus, particularly those of the fifth division, are banded with party-colored streaks, but by far the greater number are colorless.

The B. volva or true Weaver's Shuttle, is one of the most rare shells of the genus. The B. imperialis, which has a pink interior, is also considered rare. The reverse varieties of the fifth division are also highly valued.

The different species of Bulla are found in almost every part of the world.

This genus derives its name from the resemblance which some of the lesser species have to a bubble of water (Bulla).

Division I.—*Shell resembling the Cypræa genus, but toothed on the outer lip only.*

Scientific Name.	*Locality.*	*Common Name.*
Ovum	Amboyna, India, China	Egg Dipper
Imperialis	South Seas	Crumpled do
Nucleus	Mediterranean, Africa	Wrinkled do
Verrucosa	Amboyna, China	Warty do

DIVISION II.—*Shell oblong, beaked at the ends.*

Scientific Name.	*Locality.*	*Common Name.*
Volva	Japan, China	Weaver's shuttle
Lepida	Africa, Leghorn	Orange do
Birostris	Java, China	Lesser do
Secale	American Seas, Jamaica	Rye shap'd do
Spelta	Mediterranean	Oblong do
Gibbosa	Brazils	Belted do

DIVISION III.—*Shell thin, gibbous, and aperture large.*

FAMILY 1.—*Apex generally umbilicated and without a spire.*

Naucum	Amboyna, Africa, Asia	Sea nut do
Aperta	Cape of G. Hope, Britain	Wide do
Catena	Devonshire	Chain do
Plumula	Ditto	Feather do
Hydatis	Mediterranean, Britain	Paper do
Ampulla	Amboyna, East Indies	Pewet's-egg do
Amygdalus	West Indies, Niger	Almond do
Lignaria	Adriatic, Britain	Brown striated do
Pectinata	Denmark	Pectinated do
Soluta	Ceylon	Unsealed do
Akera	Norway, Britain	Elastic do
Cylindrica	South Seas	Cylindric do

Shells Minute.

Cylindracea	Britain	Cylindrical do
Umbilicata	Ditto	Umbilicated do
Retusa	Ditto	Blunt do
Obtusa	Ditto	Obtuse do

FAMILY 2.—*Having a spire.*

Physis	East Indies, South Seas	Striped do
Amplustre	China, Moluccas	Banded do

Scientific Name.	*Locality.*	*Common Name.*
Zonata	Tranquebar	Zoned Dipper
Undulata		Undulated do
Scabra	Java	Rough do

Division IV.—*Shell pyriform, with produced beak.*

Ficus	Indian Ocean, Amboyna	Fig do
Pyrum		Pear do
Rapa	Amboyna, Asiatic Ocean	Turnip shap'd do
Canaliculata		Channelled do

Division V.—*Shell generally thin, spire prominent, and body whorl inflated.*

Voluta		Volute do
Dominicensis	St. Domingo	Nine whorl'd do
Crassula	Virginia, West Indies	Reversed do
Fontinalis	Britain	Fresh water do
Rivalis	Ditto	River do
Hypnorum	Ditto	Slender do
Gelatinosa	Denmark	Gelatinous do
Virginea	West Indies	Ribbon do
Fasciata	East and West Indies	Banded do
Strigata		Yellow streaked
Striatula		Striated do
Exarata	Guinea	Wrinkled do
Truncata		Truncated do
Priamus	Guinea, West Indies	Priam do
Zebra	Ditto	Zebra do
Achatina	E. Indies, Africa, America	Broad strip'd do
Purpurea	Africa	Purple mouth'd do
Sinistrorsa	Ditto	Great revers'd do

Division VI.—*Shell cylindrical, with a subulate spire and truncate base.*

Terebellum	Amboyna	Awl shap'd do

VOLUTA.—Volute or Wreath.

DESCRIPTION OF PLATE XXIII.

Div. I.—Fig. 5. V. glabra.
Div. II.—Fig. 3. V. marginata.
Div. III.—Fig. 2. V. persicula.
Div. IV.—Fig. 4. V. cruenta.
Div. V. —*Fam.* 1. Fig. 7. V. papalis.
Div. VII.—*Fam.* 1. Fig. 8. V. vexillum.
Div. VIII.—*Fam.* 1. Fig. 1. V. ethiopica.
Div. IX. —Fig. 6. V. cancellata.

Shell one-celled, spiral; aperture without a beak, and somewhat effuse; pillar twisted or plaited, generally without lips or perforation.

THE genus Voluta is as remarkable for the beauty, as for the variety of its species; it also presents a great diversity in form, but the shells may easily be recognised by an attention to the following distinctive character.

The Volutes have, without any exception, several teeth or plaits on the columella or pillar lip. The number of teeth is by no means uniform: on some there are only four or five, while in others, particularly in those of the fourth division, they frequently amount to fifty; and it may be remarked, that the teeth are less articulated according as they are more numerous.

The divisions of this genus are founded principally on the great diversity of external character. The first comprehends those species which have an ovate form, and the aperture entire, resembling the shape of the human ear: the greater part of which are land-shells. The distinction of the second division is, that the outer margin is thickened, and the aperture not quite entire. In the third the aperture is effuse and linear. The shells of the fourth division have a subcylindrical form, and include the numerous varieties of Olives. The shells of the preceding divisions are generally smooth, but in the following they are more or less striated or ribbed. The fifth is by far the most numerous class—it contains the fusiform Volutes, usually known by the name of Mitres, some of which are very elegantly formed and finely tinted in their coloring; the most distinctive species are the V. sanguisuga and V. papalis. The V. mercatoria is a characteristic example of the sixth division, which is distinguished by having the outer lip denticulated. The seventh contains some of the most interesting shells of the genus, among which the V. musica, and V. ebræa, are conspicuous for their markings, which in the former resemble the notes used in music, and in the latter are similar to oriental characters. The papillary summit of the shells of the eighth division, which are usually called Melons, is a very marked distinction. The species are generally of a large size, and some of them, as the V. ethiopica, have their whorls surrounded with elevated hollow spines, encircling the spire with a crown. Of the remaining divisions the tenth forms an exception to the general smoothness of the Volutes, its species being extremely rugged and nodulous.

Among the more beautiful species of the genus the V. vexillum or Orange Flag Volute, is most to be admired. The V. junonia, V. lapponica, V. scapha, and V. magellanica, are highly valued for their rarity and beauty.

There is a considerable difference in the dimensions of the Volutes, some being very minute, while others attain to a great size.

The different species of the Voluta are met with in various parts of the world; the Indian seas produce the most, and some are found in the Atlantic, Pacific, Northern, and European oceans.

The form of the shells of this genus has suggested the name of Voluta, signifying rolled up cylindrically.

DIVISION I.—*Shell ovate, with the aperture generally ear-shaped and entire.*

Scientific Name.	*Locality.*	*Common Name.*
Auris-Midæ	E. Indies, Salt marshes, Ceram	Midas' ear Volute
Auris-Judæ	Moluccas, Fens in India	Judas' ear do
Australis	N. Holland, N. Caledonia	N. Holland do
Auris-Malchi		Malchus' ear do
Glabra		Smooth do
Auris-Sileni		Silenus' ear do
Fasciata	Australasia	Banded do
Auris-Virginis	East Indies	Virgin's ear do
Auris Vulpina	St. Helena	Fox's ear do
Auris-Cati		Cat's ear do
Tornatilis	England	Double banded
Flammea		Variegated do
Solidula	Southern Ocean, China	Strong do
Livida	Africa	Livid do
Coffea	Barbadoes	Coffee-color do

Minute Shells.

Minuta	Barbadoes	Minute do
Flava	East Indies	Yellow do
Denticulata	Great Britain	Toothed do
Triplicata	Guernsey	Three-tooth'd do
Pusilla		Small oval do
Bidentata	Scotland, Devonshire	Double-tooth'd
Alba	Sandwich, Sheppy Island	White do
Pellucida	Salcomb Bay, Devon	Pellucid do
Unidentata	Devonshire	Single-tooth'd do

Scientific Name.	*Locality.*	*Common Name.*
Interstincta	Bigberry Bay, Devon	Divided Volute
Insculpta	Devonshire	Engraved do
Plicatula	Ditto	Plaited do
Ambigua	Ditto	Doubtful do

Division II.—*Shell ovate, smooth, outer margin thickened, aperture nearly entire.*

Elegans		Elegant do
Pallida	Senegal, Britain	Pallid do
Exilis	Senegal	Brown banded
Monilis	China	Necklace do
Miliaria	Mediterranean	Millet do
Guttata	Jamaica	Dotted do
Marginata	Guinea	Margined do
Faba	Bombay	Bean do
Strigata	Guinea	Wave-striped do
Prunum	Goree	Bluish grey do
Chemnitzii	Guinea	Chemnitz's do
Glabella	Ditto	Polished do
Picta	Brazils	Painted do
Castanea	Ditto	Chesnut do

Division III.—*Shell ovate, smooth, spire flat, aperture effuse and linear.*

Porcellana	Indian Ocean	Porcelain do
Persicula	African Ocean	Red spotted do
Cingulata	Cape Verde, Goree	Red-lined do
Bullata	East Indies	Bubble do
Lævis	Devon, West Indies	Smooth do
Catenata	England, West Indies	Chain-spotted do

DIVISION IV.—*Shell sub-cylindrical, enamelled, and emarginated.*

FAMILY 1.—*Spire rather obtuse.*

Scientific Name.	*Locality.*	*Common Name.*
Porphyrea	W. Indies, South America	Porphyry Volute
Erythrostoma	Amboyna, Mauritius, S. Seas	Orange mouth'd
Oliva	Ditto, South Seas, Brazils, East & West Indies	Olive do
Ventricosa	Mindana, Moluccas	Ventricose do
Incrassata	Moluccas, Brazils	Thickened do
Pinguis	Brazils	Quaker do
Tigrina	Eastern Ocean	Tiger do
Carneola	Moluccas	Carnelian do
Micans	Ditto, Mauritius	Little do

FAMILY 2.—*Spire prominent or conical.*

Cruenta	Amboyna, Mauritius	Orange-throat do
Annulata	Ditto	Ringed do
Gibbosa	Coromandel, Madagascar	Gibbous do
Ispidula	Moluccas	Enamelled do
Hiatula	Africa	Gaping do
Ampla		Large do
Nivea	West Indies	Snowy do
Jaspidea	Philippines	Jasper do
Ancilla		Damsel do
Nitidula	Ditto, Moluccas, Mauritius	Delicate do
Oryza		Rice do

DIVISION V.—*Shell fusiform, generally striated or ribbed, either longitudinally or transversely.*

FAMILY 1.—*Spire less than half the length of the shell.*

Crenulata	East Indies	Crenulated do

Scientific Name.	*Locality.*	*Common Name.*
Fenestrata	Indian Seas	Eight-plaited V.
Dactylus	Bengal, India, China	Six-plaited do
Conus		Conic do
Texturata		Four-plaited do
Microzonias	Indian Ocean	White banded do
Tringa	Mediterranean	Decorticated do
Fissurata		Straw-color'd do
Barbadensis	Barbadoes	Striped do
Spadicea		Five-plaited do
Decussata		Decussated do
Variegata		Variegated do
Caffra	Africa	Caffre do
Leucozonias		White-striped do
Morio	West Indies	Tawny do
Aurantia		Orange do
Vitulina	Indian Seas	White-banded do
Olivaria		Two-banded do
Nubila	Friendly Isles	Clouded do
Pertusa	East Indies	Punctured do
Spiralis	Indian Seas	Spiral do
Patriarchalis	East Indies	Patriarch do
Muriculata	Indian Ocean	Walled do
Paupercula	Mediterranean	Zebra do
Pica	St. Bartholomew	Magpie do
Ferrugata		Bellied do

FAMILY 2.—*Spire half the length of the shell.*

Cornicula	Mediterranean, W. Indies	Horn-color do
Schroeteri	Guinea	Schroeter's do
Crenifera	Indian Seas	Crenated do
Scabricula	China	Roughly-striated
Ruffina	East Indies	Reddish yellow
Vulpecula	Amboyna	Foxy do
Castellaris	East Indian Ocean	Chequered do
Subdivisa		Subdivided do
Melongena		Fine ribbed do
Plicaria	China	Folded do
Rugosa	Indian Ocean	Rugose do
Scutulata		Scutcheon do

Scientific Name.	*Locality.*	*Common Name.*
Nigra	Guinea	Black Volute
Casta	Amboyna	Brown-banded do
Serpentina	Indian Ocean	Serpent do
Digitalis	Ditto	Fingered do
Episcopalis	Ditto, China, Mauritius	Mitre do
Papalis	Amboyna	Pope do
Thiara	Madagascar	Thiara do
Coronata	West Indies	Crown do

Shell less than half an inch in length.

Maculosa		Spotted do
Biplicata		Two-plaited do
Turricula		Tower do
Lineata	Tarentum	White-lined do
Sulcata	Tranquebar	Sulcated do
Discors	West Indies	Discordant do
Striata	Minorca	Striated do
Lævigata	Mediterranean, W. Indies	Smooth do
Ocellata	Ditto	Eyed do
Nasuta	Ditto	Black-spotted do
Marmorea	Ditto	Marbled do

FAMILY 3.—*Spire more than half the length of the shell.*

Acuminata	Tranquebar	Sharp pointed do
Virgo	Haynam	Virgin do
Filaris		Narrow do
Filosa	East Indies	Threaded do
Clathrus	China	Cancellated do
Exasperata	East Indies	Granulous do
Costata		Ribbed do
Granosa	East Indian Ocean	Grained do
Nodulosa	West Indies	Nodulous do
Sanguisuga	Amboyna, Mediterranean, South Wales	Leech do
Polygona		Polygonal do
Tæniata	Bombay	Ribbon do
Cruentata	East Indies	Knotty ribbed do

Scientific Name.	*Locality.*	*Common Name.*
Turrita ········	······················	Turreted Volute
Acus ··········	······················	Needle ··· do ··
Abbatis ·······	East Indies ···········	Abbot ···· do ··

Division VI.—*Shell small, thick, strong, having the outer lip denticulated, and rather angular.*

Mercatoria ······	Mediterranean ········	Clouded ·· do ··
Ziervogelii ······	······················	Thick-lipped do
Rustica ········	Mediterranean, Barbadoes Africa ···············	Rustic ····· do ··
Torva ·········	Barbadoes ············	Rough ··· do ··
Mendicaria ·····	Mediterranean ········	Black & white do
Nana ··········	Mediterranean ········	Dwarf ···· do ··

Division VII.—*Shell emarginate, effuse, and spire rather papillary.*

Family 1.—*Whorls nodulous or plain.*

Musica ········	American Ocean, E. & W. Indies ···············	Music ···· do ··
Virescens ······	Guinea ···············	Greenish ·· do ··
Plicata ········	East Indies ···········	Plaited ···· do ··
Ebræa··········	Asiatic Ocean, Jamaica··	Hebrew-character
Vespertilio ······	Amboyna, E. & W. Indies	Bat ······· do ··
Flavicans ······	East Indies ···········	Yellowish do ··
Nivosa ········	New Holland ·········	Snow-spotted do
Vexillum ······	Amboyna, Ceylon, E. Ind.	Banner ··· do ··
Lapponica ······	American Ocean, East & West Indies ·········	Spotted ·· do ··
Junonia ·······	South Pacific Ocean ····	Peacock ··· do ··
* Harpa ·······	Ditto ················	Lyre ····· do ··
Magnifica ·····	New Holland, South Seas	Magnificent do ··

Scientific Name.	*Locality.*	*Common Name.*
Volva	Guinea	Whitish do
Undulata	South Seas	Undulated do
Magellanica	Magellan, Falkland Isles	Magellanic do
Rupestris	Japan	Lightning do
Pacifica	South Seas	Pacific do
Angulata		Angular do
Scapha	Cape of Good Hope	Clouded do
Colocynthis	Brazils	Coloquint do

FAMILY 2.—*Whorls crowned with spines.*

Imperialis	Moluccas, Philippines	Imperial do
Vespertilio	East Indies	Bat do

DIVISION VIII.—*Shell ventricose, and the summit of the spire papillary.*

FAMILY 1.—*Spire coronated or nodulous.*

Ethiopica	P. Gulf, China, Amboyna	Ethiopic do
Diadema		Diadem do
Tessellata		Tessellated do
Corona	Indian Ocean	Ducal-crown do
Cymbiola		Boat do

FAMILY 2.—*Spire channelled.*

Olla	W. Indies, Mediterranean	Melon do
Rubiginosa	Coast of Peru	Ochreous do
Cymbium	Spain, Senegal, Guinea	Cup like do
Neptuni	Persian Gulf, Africa	Neptune's do

FAMILY 3.—*Spire truncated.*

Porcina	Spain, Africa	Keel-margin do

FAMILY 4.—*Shell formed by one broad whorl.*

Scientific Name.	*Locality.*	*Common Name.*
Glans	Africa	Reddish yellow
Navicula	Guinea	Gondola Volute

FAMILY 5.—*Spire nearly buried in the body whorl.*

Melo	East Indies, China	Melon do

DIVISION IX.—*Shell nearly entire, longitudinally or transversely ribbed and subumbilicated.*

Reticulata	Africa, Jamaica	Reticulated do
Cancellata	Mediterranean	Latticed do
Nassa	Guinea	Ribbed do
* Fusca	South Seas	Tawny do
Nucea		Nut do

DIVISION X.—*Shell spinous, or rugged and nodulous.*

Turbinellus	Amboyna	Turbinated do
Capitellum	Indian Ocean	Ridged do
Rhinoceros	New Guinea	Rhinoceros do
Muricata	Jamaica, Madagascar	Prickly do
Ceramica	Ceram, Indian Ocean	Horned do
Globosa		Globose do

DIVISION XI.—*Shell with a somewhat produced beak.*

Pyrum	Ceylon	Pear-shaped do
Gravis	Moluccas	Solid do
Scolymus	Florida	Artichoke do

BUCCINUM.—WHELK.

DESCRIPTION OF PLATE XXIV.

DIV. I.—*Fam.* 1. Fig. 3. B. dolium.
DIV. IV.—*Fam.* 2. Fig. 1. B. decussatum.
DIV. V.—*Fam.* 2. Fig. 2. B. papillosum.
DIV. VI.—*Fam.* 1. Fig. 5. B. pullus.
DIV. VII.—Fig. 7. B. harpa.
DIV. VIII.—*Fam.* 1. Fig. 6. B. monodon.
DIV. XIII.—Fig. 4. B. spiratum.
DIV. XVI.—*Fam.* 1. Fig. 8. B. maculatum.

Shell univalve, spiral, gibbous; aperture ovate, terminating in a short canal, leaning to the right, with a retuse beak or projection; pillar-lip expanded.

THIS genus is rendered difficult to separate from the Murex, by a striking similarity of form in some of its species. The leading distinction of the Buccinum is its beak or canal, which is usually much shorter than that of the Murex, and also inclines to the right: the shape of the former being more gibbous, constitutes another distinctive character.

Of the numerous divisions of this genus, the first is composed of those shells which are commonly known by the name of Tuns; they have a brittle and light structure, and although some of them grow to a large size, they retain their characteristic fragility and thinness; their form is almost invariably globose.—The B. dolium, B. olearium, and B. galea, are the most common species; the latter of which sometimes exceeds ten inches in diameter.

The Helmets, which compose the fourth division, are nearly allied to the Tuns, but they may be distinguished from them by having both of their lips (with few exceptions) furnished with a number of strong and articulated teeth; the exterior is also covered with prominent protuberances or knobs. Among the species of this description may be enumerated the three following: B. plicatum, B. cornutum, and B. rufum, the latter of which is remarkable for the glowing red color of its mouth.

The shells of the seventh have their exterior longitudinally ribbed, they include the species usually called Harps, of which the most beautiful and rare is the B. costatum, more frequently called the Many-ridged Harp.

In the eighth division, the aperture being very wide and open, as in the B. monodon, B. persicum, and B. patulum, the species have been designated Scoops.

The form of the B. undatum (the common English whelk) characterizes the tenth division; the B. spiratum is remarkable for having its whorls channelled or spirally grooved, and the B. lapillus for the durable purple dye which its animal produces.

The fifteenth division contains only two species; which have their whorls surmounted with rows of foliations. The sixteenth division is more distinct than any hitherto enumerated; it comprises those shells which are generally known by the name of Needles; they are remarkable for their sharp, lengthened, and spiral form.

The B. maculatum, which is often nine or ten inches long, may be adduced as an illustrative specimen.

Many of the species are extremely rare; but the most beautiful and valuable is the B. costatum.

The African, American, Indian, European, and Southern oceans, produce the greater number of Buccina, and many are found in the British and Mediterranean Seas.

This genus derives its name from some of its species being formed like a trumpet (Buccinum).

DIVISION I.—*Shell inflated, rounded, thin, slightly transparent and brittle.*

FAMILY 1.—*Aperture without teeth.*

Scientific Name.	*Locality.*	*Common Name.*
Olearum	East Indies, China	Tun
Galea	Mediterranean	Brown Tun
Perdix	America, South Seas, Amboyna	Partridge do
Dolium	Mediterranean, Amboyna	Spotted do
Caudatum		Beaked do

FAMILY 2.—*Outer lip toothed.*

Sulcosum	Coromandel, China	Flat ribbed do
Chinense	China, Java	Chinese do

DIVISION II.—*Shell ovate, ribbed, aperture rather contracted, pillar lip thickened and strongly wrinkled, and outer lip toothed, thickened, and marginated.*

Pomum	Amboyna, China	Thick lipp'd do
Ringens		Grinning do

DIVISION III.—*Shell with tuberculated belts or ribs, pillar lip spread, and beak much produced and reflected.*

Scientific Name.	*Locality.*	*Common Name.*
Echinophorum ··	Mediterranean ·········	Tuberculated Tun
Nodosum ·······	·······················	Belted ···· do ··
Rugosum ·······	Mediterranean ·········	Rugged ··· do ··

DIVISION IV.—*Shell with an exserted reflected beak, pillar lip spread, and the outer lip unarmed outwardly.*

FAMILY 1.—*With the spire truncated, aperture rather linear, pillar lip much spread, the pillar slightly wrinkled, and outer lip thickened.*

Corrugatum ····	·······················	Wrinkled Helmet
Plicatum ·······	Jamaica, Ascension Island	Plaited ···· do ··
Flammeum ·····	Jamaica, West Indies ···	Triangular do ··
Rufum ·········	Madagascar ···········	Red ······ do ··
Testiculus ······	Jamaica ···············	Bonnet ··· do ··

FAMILY 2.—*With the spire rather elevated, pillar lip thinly spread, pillar slightly wrinkled, and outer lip thickened.*

Decussatum ····	Mediterranean ·········	Decussated do ··
Areola ·········	Ditto, E. Indies, Amboyna	Draft-board do ··
Strigatum ······	Ditto ·················	Yellow striped
Saburon ········	Mediterranean, Goree ··	Grey ····· do ··
Abbreviatum ···	·······················	Shortened do ··

FAMILY 3.—*Resembling the second, except having the pillar lip granulated.*

Granulatum ····	Mediterranean, W. Indies	Granulated do ··
Undulatum ·····	Ditto, Barbadoes ······	Undulated · do ··

FAMILY 4.—*Resembling the third, but having the pillar lip granulated and wrinkled.*

Scientific Name.	*Locality.*	*Common Name.*
Inflatum ········	Indian and African Seas ·	Inflated Helmet
Tessellatum ·····	Amboyna, S. Seas, Guinea	Tessellated do ··
Bilineatum ·····	Weymouth ············	Smooth net do ··
Cicatricosum ····	Indian Ocean ··········	Cicatrix ·· do ··

FAMILY 5.—*With the pillar lip smooth.*

Recurvirostrum ··	Barbadoes ············	Recurved beak do
Cassis ··········	Bay of Naples ·········	Helmet ········

DIVISION V.—*Shell resembling the last division, but the outer lip, on the outside, is muricated at the base.*

FAMILY 1.—*With the spire short.*

Erinaceus ······	Tranquebar, China, American Ocean ········	Hedgehog do ··
Biarmatum ······	·······················	Knobbed ·· do ··
Fimbria ········	East Indies ············	Bordered ·· do ··
Glaucum ·······	Amboyna, China ······	Yellow ··· do ··
Vibex ·········	East and West Indies, Tranquebar ··········	Agate ······ do ··

FAMILY 2.—*With the spire elevated.*

Papillosum ·····	Indian & Asiatic Oceans ·	Prickly lip do ··
Glans ··········	Ditto ·················	Thread girded do
Mutabile ·······	Senegal ········· ·····	Changeable do ··
Gibbum ········	Mediterranean, Amboyna	Hunchbacked do

DIVISION VI.—*Shell with the pillar lip dilated and thickened, and aperture wide.*

FAMILY 1.—*With the pillar lip much thickened and dilated.*

Scientific Name.	*Locality.*	*Common Name.*
Arcularia	China, Amboyna, Mauritius	Broad lipped B.
Coronatum	Madagascar	Crowned do
Hepaticum	Dorsetshire	Small knobb'd do
Pullus	Mediterranean, Malacca, Senegal	Young do
Thersites	Asiatic Ocean	Pale olive do
Verrucosum	Ceylon, Madagascar	Warty do
Gibbosulum	Mediterranean, Asiatic Ocean	Gibbous do
Clathratum	East Indies	Latticed do
Niveum	Tranquebar	Cancellated do
Lima	East Indies	Acuminated do

FAMILY 2.—*With the pillar lip spread, but not very thick.*

Textum		Turreted do
Reticulatum	Britain, Mediterranean, Azores	Reticulated do
Ambiguum	Britain	Small plaited do
Macula	Norway, Britain	Spot-lipped do
Stolatum	Tranquebar	Brown-banded do
Plicatulum	East Indies	Plaited do
Piscatorium	Ditto	Knobbed do
Mauritii	Mauritius	Six-toothed do
Armillatum		Brown do
Nitidulum	Mediterranean, Goree	Thin banded do
Ventricosum	St. George's Bay	Ventricose do

FAMILY 3.—*Obtuse, convex, depressed, and smooth.*

Neriteum	Mediterranean	Nerite-shaped do

Division VII.—*Shell with longitudinally keeled, mucronated ribs, pillar smooth.*

Scientific Name.	*Locality.*	*Common Name.*
Harpa ··········	East Indies, Mauritius, Amboyna ···········	Harp ··········
Cancellatum ····	Tranquebar ············	Latticed Harp ··
Crenatum ······	Mauritius ···············	Crenated · do ··
Costatum ······	Philippine Isles ········	Many-ridged do

Division VIII.—*Pillar lip appearing as if worn flat, aperture very wide and open.*

Family 1.—*Armed with a subulate tooth at the base.*

Monodon ·······	South Seas, Cape Horn ·	One-toothedScoop
Imbricatum ····	South Seas ············	Imbricated do ··
Crassilibrum ····	······················	Thick-lipp'd do ··
Narval ·········	South Seas ············	Unicorn ··· do ··
Cingulatum ····	Peru ·················	Belted ···· do ··
Rhinoceros ······	······················	Smooth ··· do ··

Family 2.—*Without the tooth, and the outside striated.*

Haustrum ······	New Zealand ··········	Scoop ·········
Persicum ·······	Asiatic Ocean, Amboyna	Persian ··· do ··
Sertum ·········	Ditto, Red Sea ·········	Chesnut ·· do ··
*Vexillum ······	······················	Flag ······ do ··

Family 3.—*With the outside tuberculated.*

Patulum ········	E. & W. Indies, America	Wide-mouth'd do
Luteostomum ···	South Seas, China ·····	Pallid ···· do ··
Hæmastoma ····	European, Mediterranean, and Asiatic seas ······	Red-lipped do ··
Armigerum ····	South Seas ·············	Armed ···· do ··
Dentex ········	······················	Toothed ·· do ··

Division IX.—*Shell with spire obliquely recurved, aperture very large, outer lip reflected, and pillar lip with two obsolete teeth at the base.*

Scientific Name.	*Locality.*	*Common Name.*
Concholepas	Peru, Magellan	Limpet-shap'd S.

Division X.—*Shell coarse, spire acute, aperture ovate, pillar lip smooth and flattish.*

Lapillus	Britain, Norway, Azores	Common Whelk
Varium		Varied do
Undatum	Britain, Norway	Wave-ribbed do
Ciliatum	Greenland	Ciliated do
Solutum		Unequal ribbed
Porcatum	Mexico	Rugged do
Papyraceum	Norway	Paper do
Otaheitense	Otaheite	Otaheite do
Glaciale	Northern Ocean	Keel-ridged do
Carinatum	Spitzbergen	Carinated do
Filosum		Threaded do
Sulcatum	Tranquebar	Grooved do
Smaragdulus	Ditto	Emerald do
Undosum	Amboyna	Undulated do
Affine	South Seas, Moluccas	Brown-striped do
Fumosum		Smoky do
Tranquebaricum	Tranquebar	Tranquebar do
Cruentatum		Red-spotted do
Pyrozonias		Double-streaked
Versicolor	East Indies	Lurid do
Lamellosum	New Zealand	Lamellar do
Lamellatum		Lamellated do
Crispatum		Wrinkled do

DIVISION XI.—*Shell strongly ribbed transversely.*

Scientific Name.	*Locality.*	*Common Name.*
Orbitum	New Zealand	Globose Whelk
Scala	East Indies	Broad-belted do
Indicum	Ditto	Indian do

DIVISION XII.—*Shell sub-globose, ponderous, aperture large, pillar lip very thick.*

Plumbeum	California	Double-groov'd do
Crassum		Thick do

DIVISION XIII.—*Shell with the pillar abrupt and strongly umbilicated.*

Spiratum	E. Indies, Mediterranean, Arabia	Acute spire do
* Eburneum	China	Spotted do
Zeylanicum	Ceylon	Ceylon do
Glabratum	Tranquebar	Glossy do

DIVISION XIV.—*Shells somewhat polished and not enumerated in the former divisions.*

Tigrinum	New Zealand	Tiger do
Turgitum	Ditto	Red-spotted do
Scutulatum	Ditto	Streaked do
Testudineum	Ditto	Tortoise-shell do
Cochlideum	South Seas	Indented spire do
Catarracta	N. Zealand, C. G. Hope	Long-striped do

Scientific Name.	*Locality.*	*Common Name.*
Lævissimum	East Indian Seas	Polished Whelk
Cyaneum	Greenland	Blueish do
Læve	East Indies	Smooth do
Igneum		Red streaked do
Lyratum		Lyre do
Plumatum	Jamaica	Painted do

Minute Shells.

Glaberrimum		Smooth do
Nucleus	N. Zealand, Madagascar	Small do
Lineatum	Britain, West Indies	Lineated do
Exile		Slender do
Prærosum	Southern Europe	Carious do
Cinctum	Britain	Minute do
Minimum		Lesser do

DIVISION XV.—*Shell roundish, spire flat, whorls lamellated or spinous, beak produced and umbilicated, and aperture large.*

Bezoar	China	Bezoar's do
Bulbosum	Tranquebar	Bulbous do

DIVISION XVI.—*Shell turreted, subulate, and slightly polished.*

FAMILY 1.—*Whorls entire.*

Maculatum	Africa, E. Indies, Amboyna	Spotted Needle
Oculatum	East Indies	Oculated do
Subulatum	Ditto, Amboyna, China	Awl-shap'd do
Felinum		Cat do
Vittatum	Ceylon	Ribbon do
Digitale	Bombay, Senegal	Bluish-banded do
Concinnum		Belt-spotted do

Scientific Name.	*Locality.*	*Common Name.*
Cinereum	Amboyna	Steel-grey Needle
Succinctum	East Indies	Girdled do
Lanceatum	Ditto, Amboyna	Lancet do
Murinum	Africa	Mouse-color'd do
Hastatum		Javelin do
Sinuatum	East Indies	Twisted do
Bifasciatum	Ditto	Two-banded do
Radiatum	Coast of Naples	Radiated do
Virgineum	Virginia	Fresh water do
Acicula	Britain, Paris	Minute-pointed do

Family 2.—*Whorls divided by a transverse line or furrow.*

Crenulatum	China	Crenulated do
Hecticum	Africa	Hectic do
Geminum		Divided do
Proximatum		Glossy do
Monile		Necklace do
Strigilatum	Asiatic Ocean	Strigilated do
Duplicatum	Indian Ocean, Haynam	Double whorl do
Acus		Needle
Dimidiatum	China	Orange & White
Pertusum		Hollow dotted do

STROMBUS.—WINGED OR CLAW-SHELL.

DESCRIPTION OF PLATE XXV.

DIV. I. —Fig. 4. S. chiragra.
DIV. II.—*Fam.* 1. Fig. 2. S. polyfasciatus.
Fam. 1. Fig. 3. S. granulatus.
DIV. V.—*Fam.* 2. Fig. 5. S. palustris.
DIV. VI.—Fig. 1. S. oniscus.

Shell univalve, spiral; aperture much dilated; the lip expanding, and produced into a groove leaning to the left.

THE distinguishing character of this genus consists in the position of its beak, which inclines to the left; but this distinction cannot always be relied upon, as the younger shells are sometimes wholly destitute of any beak, and hence a confusion with many other genera has often taken place.

The greater part of the shells which constitute the first and second divisions, have their outer lip extended either into the form of an expanded wing, (hence called Alatæ or Winged-shells), or projecting in distinct linear divisions or pointed claws; but these appearances are only manifest in adult shells. The most remarkable of those species which have the lip terminated by claws are the S. chiragra, S. scorpius, S. lambis and S. millepeda. The number of claws in the different species, (with the exception of the S. pes-pelicani, which has only four,) varies from six to ten. In some the claws are nearly straight, and often smooth, while in others they are very much curved, and covered with nodules. The growth of thése shells particularly deserves notice: it has already been stated that the very young shells have no appearance of claws; which first present themselves in the form of short and open canaliculated fissures; when the shells are farther advanced in growth, the claws assume their proper shape, but are thin, hollow, and imperfectly closed; but become filled up and solid, when the shells have arrived at their full growth. Of the winged class the S. gallus, S. auris-dianæ, S. latissimus and S. gigas have the lip most expanded. The S. luhuanus, and a few others, have some of their whorls very gibbous, and are on that account generally known by the name of Pouters. The colors of the interior are usually extremely vivid and beautiful. The fourth and fifth divisions consist of turreted shells, the former being distinguished by a longitudinal fissure, extending from the aperture to the summit; and the latter by its lengthened spire, which gives the shells a resemblance to some species of the Murex, and is exemplified in the S. fusus. The S. oniscus, the only shell of the sixth division, is destitute of a winged termination.

The S. latissimus and S. fusus, are two of the most rare species of the genus.

The African, Indian, American, and European oceans produce many species of this genus, and some few are found in the Mediterranean, Red, and Arctic seas.

This genus derives its name from the resemblance which some of its species bear to a whipping-top (στρόμβος).

Division I.—*Shell with linear segments, or claws, at the margin of the outer lip.*

Scientific Name.	*Locality.*	*Common Name.*
Chiragra ·······	China, Mauritius ·······	Devil's Claw-shell
Scorpius ·······	Amboyna, China ·······	Scorpion ·· do ··

Scientific Name.	*Locality.*	*Common Name.*
Lambis	South Seas, Asia, Red Sea	Spider Claw-shell
Millepeda	China, Ceylon, Coromand.	Millepede do
Purpureus		Purple-mouth do
Elongatus		Lengthened do
Truncatus	East Indies, China	Truncated do
Pes-Pelicani	Britain, Mediterranean, Norway	Pelican's foot do

Division II.—*Shell with the outer lip much expanded.*

Family 1.—*With the margin of the outer lip thickened or lobed.*

Gigas	West Indies, America	Giant Wing-shell
Accipiter	Asiatic Ocean	Heavy do
Gallus	West Indies	Plough do
Tricornis	Ditto, Red Sea	Three-horn'd do
Pugilis	Ditto, Florida	Thick-spin'd do
Fasciatus	Jamaica, Goree	Banded do
Lentiginosus	Amboyna, China, Mauritius	Pink-lipped do
Papilio	East Indies	Butterfly do
Auris-Dianæ	Amboyna, China, Asiatic Ocean	Diana's ear do
Pacifica	South Seas	Pacific do
* Granulatus	California	Granulated do
Polyfasciatus	Red Sea	Many banded do
Luhuanus	South Seas	Luhoe do
Canarium	E. Indies, R. Sea, Amboyna	Partridge do

Family 2.—*With the outer lip curved inwards.*

Latissimus	Asiatic Ocean, Amboyna, China	Broad-winged do
Laciniatus	East Indies	Sinuated do

Family 3.—*Spire elevated, and outer lip rounded and short.*

Scientific Name.	*Locality.*	*Common Name.*
Vittatus	Asia, China, Red Sea, Amboyna	Ribbon Strombus
Epidromis	Ditto	Mainsail do
Sulcatus	China	Sulcated do

Family 4.—*With both lips pointed, and attached to the whorls of the spire.*

Marginatus	China	Margined do
Minimus	E.Indies,Amboyna,China	Least do
Accinctus	Amboyna, Batavia, ditto	Girdled do

Division III.—*Shell smooth or plaited, outer lip striated within, and but slightly expanded.*

Gibberulus	Asiatic Ocean, Mauritius, China	Pouter do
Urceus	Ditto	Pitcher do
Erythrinus	Red Sea	Nodulous do
Samar	Amboyna, East Indies	Samar do
Dentatus	Mauritius	Toothed do

Division IV.—*Shell turreted, with a longitudinal fissure extending from the aperture to the summit.*

Fissus		Slit do
Fissurella	East Indies	Fissure do

DIVISION V.—*Shell turreted, with a very long spire.*

FAMILY 1.—*The aperture ending in a long beak, and the outer lip toothed.*

Scientific Name.	*Locality.*	*Common ame.*
Fusus ··········	Red Sea ··············	Spindle Strombus
Unicornis ·····	East Indies ············	Unicorn ··· do ··

FAMILY 2.—*Without the beak and the aperture not toothed.*

Tuberculatus ····	Mediterranean ·· ······	Tuberculated do
Palustris ········	East Indies ············	Marsh ···· do ··
Ater ···········	Marshes in Amboyna ··	Black ····· do ··
Auritus ·········	Guinea ···············	Eared ···· do ··
Lividus ·········	·······················	Livid ····· do ··
Costatus ········	Britain ···············	Ribbed ···· do ··

DIVISION VI.—*Shell ob-ovate, with transverse nodulous belts, pillar lip granulated, and the outer lip thickened and toothed within.*

Oniscus ·········	West Indies ···········	Wood-louse do ··

MUREX.—Rock or Trumpet-Shell.

DESCRIPTION OF PLATE XXVI.

Div. I. — *Fam.* 1. Fig. 2. M. tribulus.
Div. III.—*Fam.* 2. Fig. 8. M. rota.
Div. IV.—*Fam.* 1. Fig. 5. M. rana.
Div. VI.—Fig. 4. M. fimbriatus.
Div. IX.—*Fam.* 1. Fig. 1. M. babylonius.
Div. XII.—Fig. 6. M. asper.

Shell univalve, spiral, rough, with membranaceous sutures; aperture oval, ending in an entire, straight, or slightly ascending canal.

THE most prominent character which distinguishes the species of this genus from those of the two preceding genera, consists in the beak being almost invariably straight, and very much produced, sometimes turning a little upwards.

The Murices are shells of irregular form, arising from their surfaces being usually armed with spines, knobs, striæ, or foliations. The shells of the first division have the beak considerably produced, and are distinguished from those of the second by the spines with which their surfaces are armed; the most remarkable species is the M. tribulus, of which there are two varieties; (the more common being called the Thorny-Woodcock, and the rarer Venus's Comb;) the latter is one of the most elegant shells of the genus. When perfect its exterior is most beautifully adorned with regular rows of thin and delicate spines.

The next division comprises those species which are commonly known by the name of Triplices, or more properly Purpuræ, as the animals inhabiting most of the shells of this class produce a liquid of a rich purple color, hence the whole genus has by some authors been called Purpura: the species are foliated, and have a much shorter beak than those of the preceding. The sutures are composed of crisped foliations, and acute angular ramifications, which are most strikingly marked in the M. radix, and the pink and yellow mouthed varieties of the M. saxatilis. The number of rows in these sutures differs considerably, some, as the M. ramosus, &c. have but three, the M. scorpio has four, and the M. saxatilis five.

The fourth division is composed of those species that have their sutures thick, protuberant, and rounded; such are the M. rana, M. femorale (or Gadroon-whelk) and M. lyratus. The fifth division consists of only two species, which are of irregular form.

In the species of the sixth division, the form is more abbreviated and gibbous, they are also more or less spinous, and without a manifest beak: as the M. ricinus, M. hippocastanum, M. neritoideus.

The ninth division is composed of such shells as have a long, straight, subulate, closed beak, and unarmed with spines. The M. babylonius, and others of the first family, have a small fissure or incision on the extremity of the outer lip, close to the termination of the first whorl, a peculiarity solely confined to these species.

In the tenth division the spire is rather depressed, and the beak so much shortened, that in some of the species, and particularly in the M. ficus, a resemblance to the Bulla ficus may be observed.

The eleventh division is composed of the species which have a ventricose and oblong form, with a dilated aperture: the most remarkable is the M. tritonis which is used by the natives of New Zealand, and by the Africans and many nations of the East, as a horn or trumpet; it sometimes exceeds two feet in length.

The last division of the Murices includes those species that are tapering and subulate, having a very short beak: among them may be noticed, the M. vertagus and M. aluco.

Of the rarer species may be enumerated the M. perversus, M. prismaticus, M. stramineus, M. radix, M. aruanus, M. regius, M. pinata, &c.

The numerous species of the Murex are found in the European, Northern, and Southern Seas; India, and in the Mediterranean, Adriatic, and Atlantic.

This genus derives its name from many of its species being rough, like the sharp crags of a rock (Murex).

Division I.—*Shell spinous with a produced beak.*

Family 1.—*With three varices.*

Scientific Name.	*Locality.*	*Common Name.*
Tribulus	Asiatic Ocean	Thorny Woodcock
Scolopax	Red Sea	Thorny Snipe M.
Motacilla	East Indian Seas	Nightingale do ..

FAMILY 2.—*With seven varices.*

Scientific Name.	*Locality.*	*Common Name.*
Cornutus	Africa, Amboyna	Horned Snipe M.
Brandaris	Mediterranean, Africa, Guinea	Short beak'd Snipe

DIVISION II.—*Shell with a produced beak similar to the first division, but not spinous.*

Haustellum	Asiatic Ocean, Red Sea, China	Snipe do
Spirillus	Tranquebar, Malabar	Blunt tipped do

DIVISION III.—*Shell foliated, with a short beak.*

FAMILY 1.—*With three varices.*

Ramosus	S. Seas, E. & W. Indies, Amboyna	Branched do
Foliatus	New Zealand	Foliated do
Lingua	Goree	Sheep's tongue do
Tripterus	Batavia	Subtriangular do
riqueter	Tranquebar, China	Three warted do

FAMILY 2.—*With more than three varices.*

Scorpio	Amboyna, China	Scorpion do
* Rota	Red Sea	Wheel do
Saxatilis	Mediterranean, Guinea, Asiatic Ocean	Endive do
Trunculus	Mediterranean	Tyrian dye do
Rosarium		Rosary do
Pomum	Mediterranean, Senegal	Apple shap'd do
Miliaris	Nicobar Isles	Scabrous do
Radix	Peru	Root do

Scientific Name.	*Locality.*	*Common Name.*
Melanomathos	East Indian Seas	Black-spined M.
Lamellosus	Straits of Magellan	Lamellar do
Clathratus	Iceland, Norway	Ribbed do
Erinaceus	Britain, Mediterranean	Rough ridg'd do
Scala	East Indies	Ladder do

DIVISION IV.—*Shell with thick protuberant rounded varices.*

FAMILY 1.—*With two opposite varices.*

Rana	Africa, China, Amboyna	Frog do
Crassus	Madagascar	Thick frog do
Spinosus	Tranquebar	Spiny frog do
Gyrinus	Scotland, Mediterranean, India	Whorled do
Bufonius	South Seas	Toad shap'd do
Lampas	Mediterranean, Madagascar, East Indies	Granulated do
Scrobilator	Mediterranean, Senegal	Violet throated do
Reticularis	Carolina, West Indies, Mediterranean	Reticulated do

FAMILY 2.—*With two subalternate varices.*

Argus	Amboyna, Mediterranean	Argus do
Olearium	Africa, Mediterranean, South of Europe	Oil jar do
Rubecula	Red Sea	Footman do
Femorale	Guinea, E. & W. Indies	Triangular do
Lotorium	Jamaica, Amboyna	Angulated do
Pileare	Mediterranean	Nodulous do
Candisatus		Mottled do
Maculosus	Amboyna, Mauritius	Spotted do
Spengleri	New South Wales	Spengler's do
Pyrum	Coromandel	Pear do
Clavator	Ceylon	Club shap'd do
Caudatus	Coromandel	Caudated do
Dolarium	Portugal	Narrow belt do

Family 3.—*With a single varix.*

Scientific Name.	*Locality.*	*Common Name.*
Parthenopus	Bay of Naples	Tawny yellow M.
Cutaceus	Africa, W. Indies, Corom.	Rough skin do
Clandestinus		Double lipp'd do
Lyratus	New Zealand	Lyre shap'd do

Division V.—*Shell with unequally gibbous whorls, decussated ribs, and the aperture surrounded by a thin dilated membrane.*

Anus	As. Ocean, Mediterranean	Grimace Whelk
Mulus	Coasts of Hitoe	Mule do

Division VI.—*Shell somewhat spinous and without a beak.*

Ricinus	Asiatic Ocean, China	Spur do
Nodus	Jamaica	Chesnut do
Neritoideus	Guinea, South Seas	Mulberry do
Fimbriatus		Seal-skin do
Hystrix	E. Indies, ditto	Porcupine do
Mancinella	Amboyna, Madagascar	Mancinella do
Hippocastanum	Batavia, Banda	Horse chesnut do
Sacellum	Nicobar Isles	Corded do
Nodatus	New Holland	Knobbed do
Lacerus	Guinea	Carinated do
Virgatus	East Indies	Nodulous do
Columbarium	South Seas	White belted do
Senticosus	China, South Seas	Cancellated do

Division VII.—*Shell nodulous or longitudinally plaited, with a short beak.*

Plicatus	East Indies	Plaited do

Scientific Name.	*Locality.*	*Common Name.*
Morbosus	West Indies	Diseased Whelk
Consul	East Indies	Ventricose do
Undatus	Tranquebar	Waved do
Fiscellum	Pulo Condore	Short beak'd do
Dubius		Doubtful do
Fenestratus	Amboyna	Latticed do

DIVISION VIII.—*Shell ovate, aperture wide, inner lip thickened and spread, outer lip thick and undulated.*

Stramineus	New Zealand	Straw-color'd do
Australis	South Seas	Southern do

DIVISION IX.—*Shell with a long, straight, subulate beak, unarmed.*

FAMILY 1.—*Turreted, outer lip having a notch at the summit.*

Babylonius	Asia, Amboyna, China	Tower of Babel M.
Clavatulus	Guinea	Crowned tower do
Gibbosus	Red Sea	Gibbous do
Virgineus	Guinea	Virgin tower do
Javanus	Java, Tranquebar, China	Javanese do
Tornatus	Tranquebar, Magellan	White tower do

FAMILY 2.—*With the column plaited.*

Tulipa	West Indies, South Seas	Tulip do
Nassa	West Indies	Rough do
Amplustre	America, South Seas	American flag do
Trapezium	R. Sea, Amboyna, China	Striped tower do
Polygonus	Isle of France, B. of Naples	Many angled do
Infundibulum	West Indies	Funnel shap'd do
Lancea	Amboyna	Lanceolate do
Ocellatus	West Indies	Eyed do
Craticulatus	Mediterranean	Plaited do

FAMILY 3.—*With the outer lip entire, and the column smooth.*

Scientific Name.	*Locality.*	*Common Name.*
Colus	Amboyna	Spindle M.
Striatulus		Transversely str.
Versicolor	East Indian Seas	Changeable do
Verrucosus	Red Sea	Warty do
Aruanus	China, Isle of Aru, Africa	Aru Trumpet do
Tuba	China	Trumpet do
Canaliculatus	Canada, Virginia	Channelled do
Carica		Keeled do
Perversus	Mexico, Jamaica, N. Amer.	Reversed do
Ternatanus	Island of Ternate	Ternate do
Pardalis		Leopard do
Maroccensis	Morocco	Morocco do
Cariosus		Carious do

DIVISION X.—*Shell with the spire rather depressed, aperture dilated, nearly the length of the shell, and beak short.*

Melongena	America, Amboyna, Jamaica	Open mouth do
Calcaratus	Amboyna, China	Brownish white
Ficus	Red Sea	Fig shaped do
Spadiceum	West Indies	Lineated do
Umbilicatum	Red Sea	Umbilicated do
Candidum	Red Sea	White do
Corona	Gulf of Mexico	Crowned do
Morio	Africa, W. Indies, Magellan	Moor do
Pugilinus	Tranquebar, Moluccas	Reddish brown do
Cochlidium	East Indies	Brown streaked
Harpa		Harp do

DIVISION XI.—*Shell oblong, ventricose, aperture dilated and ovate, spire produced and beak short.*

Scientific Name.	*Locality.*	*Common Name.*
Antiquus	Norway, Britain, Denmark	Antiquated M.
Magellanicus	Straits of Magellan	Magellanic do
Norwegicus	Norway	Norwegian do
Fornicatus	Greenland	Arched do
Despectus	Northern Ocean, Iceland	Despised do
Subantiquatus	Britain	Angulated do
Tritonis	Mediterranean, Amboyna, America	Triton do
Nerei	South Seas	Musical do
Vulpinus		Fox do
Pusio	Mediterranean	Wreath do
Corneus	Gt. Britain, S. of Europe	Slender horn do
Lineatus	New Zealand	Lined do
Lignarius	Southern Europe	Woody do
Syracusanus	Mediterranean	Syracuse do
Perron	South Seas	Shelving do
Prismaticus	Ditto, Pulo Condore	Prismatic do
Bamffius	Scotland, England	Bamff do
Gracilis	Britain	Elegant do
Attenuatus	West of England	Lengthened do
Nebula	Britain	Clouded do
Costatus	Ditto, Norway	Ribbed do
Proximus	Scotland	Many ribbed do
Septangularis	West of England	Seven sided do
Turricula	Britain	Turreted do
Rufus	Ditto	Red do
Sinuosus	Weymouth	Sinuated do
Linearis	West of England	Lineated do
Purpureus	Devonshire	Purple do
Muricatus	Ditto	Thorny do
Minutissimus	Pembrokeshire	Very small do
Arenosus	India	Sea sand do
Scriptus	Mediterranean	Written do

Division XII.—*Turreted and subulate, with a very short beak.*

Scientific Name.	*Locality.*	*Common Name.*
Obeliscus	West Indies	Chinese obelisk M.
Vertagus	Amboyna, East Indies	Curved beak do
Plicatulus	East Indies	White plaited do
Aluco	Mediterranean, Amboyna	Caterpillar do
Tuberosus	Amboyna, Red Sea	Knobbed do
Adansoni	River Gambia	Adanson's do
Clava	Pulo Condore	Club shap'd do
Uncinatus		Grappling do
Atratus		Blackish do
Alucoides	Mediterranean, Adriatic	Marbled do
Ebeninus	South Seas	Deep black do
Fuscatus	Mediterranean, Senegal	Clouded do
Torulosus	East Indies	Ringed do
Radula	Africa, West Indies	Rayed do
Marginatus	East Indies	Margined do
Serratus	New Zealand	Serrated do
Asper	West Indies	Rough grain'd do
Granulatus	Asiatic Ocean	Grained do
Sulcatus	Marshes in Moluccas	Grooved do
Literatus	Guadaloupe	Lettered do
Hexagonus	South Seas	Six ribbed do
Reticulatus	Britain	Reticulated do
Tubercularis	Ditto	Tuberculated do
Adversus	Ditto	Left banded do
Subulatus	Scotland	Awl shap'd do
Decollatus		Decapitated do

TROCHUS.—Top-Shell.

DESCRIPTION OF PLATE XXVII.

Div. I.— *Fam.* 1. Fig. 5. T. concavus.
Fam. 1. Fig. 1. T. solaris.
Div. II.—*Fam.* 1. Fig. 4. T. cookii.
Fam. 1. Fig. 2. T. iris.
Div. III.—*Fam.* 1. Fig. 3. T. telescopium.

Shell univalve, spiral, more or less conic; aperture somewhat angular or rounded; the upper side transverse and contracted; pillar placed obliquely.

THE leading characteristic of the Trochus is the conical shape of its species, the base being broad and the whorls gradually tapering towards the apex. This form prevails with very few exceptions throughout the genus; some, however, have so strong a resemblance to the Turbo, that frequent mistakes have been made in their classification.

A few species of this genus have their surfaces almost smooth; but the greater number are covered with knobs, spines, tuberculations, or undulations, of which the T. solaris and the T. imperialis are striking examples. The former has its margin beset with long spines, placed at regular distances, and, when the shell is perfect, resembling the rays of the sun, as represented in carved work. Many, when uncoated, present a brilliant mother-of-pearl appearance; others have only a pearly aperture, and a few exhibit a bronze-like hue. The aperture of the shell in this as well as in many other genera of univalves, is closed by a stony or horn-like operculum, affixed to the animal.

Of the divisions of the Trochus the first is the most numerous; it comprehends those species which have their pillar perforated, and is divided into five families, distinguished by the peculiarities of the pillar and umbilicus: the T. niloticus, T. maculatus, T. pharaonis, T. cylindraceus, and T. perspectivus, may be mentioned as illustrative examples of each family.

The T. conchyliophorus, or Carrier Trochus, is a very remarkable species; it is invariably covered with extraneous substances, strongly adhering to the whorls of the shell. There are two distinct varieties: one of which is familiarly called the Conchologist, from its being loaded with perfect shells or fragments; and the second, the Mineralogist, as its adhesions consist of stones, ores, &c. When the former variety is loaded with corals only, it is called the Zoologist or Coral-carrier.

The second division consists of those Trochi which are imperforated, or have their umbilicus closed, as in the T. tuber, (which greatly resembles a Turbo) T. labio, and T. vestiarius. The T. iris of this division deserves particular notice, on account of the iridescence and splendid metallic lustre which its surface exhibits when uncoated.

The third division includes those species which are much elongated, and greatly resemble screw or needle shells. Unlike the rest of the genus, they have an exserted pillar; and, when placed on their base, they fall on one side. The most prominent species are the T. telescopium and the T. dolabratus.

The T. conchyliophorus, T. imperialis, T. solaris, T. perspectivus, &c. are highly valued for their beauty and rarity.

The Trochus derives its name from the resemblance of its species to the form of a top (τροχὸς).

The Trochi are found in almost every part of the world.

DIVISION 1.—*Shell umbilicated, erect.*

FAMILY 1.—*With the pillar and umbilicus smooth.*

Scientific Name.	*Locality.*	*Common Name.*
Niloticus	Ind. Ocean, China, S. Seas	Large marble T.
Conus	East Indies, New Guinea	Conic do
Spinosus	New Zealand	Thorny do
Jujubinus	Mauritius, West Indies	Mottled do
Concavus	Coromandel, N. Zealand	Concave do
Vernalis	East Indies	Green do
Conspersus	East Indian Ocean	Poppy do
Ochroleucus	Ditto	Whitish brown
Stellatus	Ditto	Starred do
Spengleri		Spengler's do
Costatus		Ribbed do
Inæqualis	Mozambique	Unequal do
Regius		Royal do
Verrucosus	East Indian Ocean	Warty do
Radiatus	West Indies, Mauritius	Radiated do
Viridis	New Zealand	Green do
Fanulum	Pernambucca	Pagoda do
Strigosus	Morocco	Black lipp'd do
Dubius		Doubtful do
Depressus		Depressed do
Lævis		Smooth do
Groenlandicus	Norway, Greenland	Greenland do
Magus	Britain	Tuberculated do

Scientific Name.	*Locality.*	*Common Name.*
Variegatus	Cape of Good Hope	Variegated T.
Afer	Cape Dakar in Senegal	Grey marble do
Muricatus	Mediterranean	Prickly do
Roseus	C. of Good Hope, Naples	Rose-color'd do
Patholatus	West of England	Tumid do
Scaber		Rough do
Quadratus	Mediterranean	Square spotted do
Croceus	Morocco	Saffron color'd do
Varius	Mediterranean	Varied do
Obliquatus	Ditto, Britain	Umbilicated do
Cinerarius	West Indies, Norway, Mediterranean	Ashy color'd do
Neritoideus	Greenland	Reddish color'd do
Albidus		White do
Vittatus		Ribbon do
Divaricatus	Mediterranean, Norway	Divaricated do
Fuscatus		Brown do
Umbilicaris	Mediterranean	Obliquely rayed
Cinereus	Ditto	Cinereous do
Fasciatus		Banded do
Planus		Flat do
Solaris	East & West Indies, India, South Seas	Sun do
Inermis	West Indies	Short-spined do
Imperialis	New Zealand	Imperial do
Conchyliophorus	St. Domingo, China	Carrier do
Tectum	West Indies, Mauritius	Arch-lipp'd do
Pumilio	Africa	Dwarf do
Terrestris	Britain, Italy, Tunis	Land do
Bidens	Botannic Garden, Strasburgh	Double-tooth'd do
Fragilis		Brittle do
Carinatus	Saxe Weimar	Keeled do
Flumineus	River Huines	River do

FAMILY 2.—*With pillar toothed or plaited, and umbilicus smooth.*

Maculatus	Madagascar	Spotted do
Alveare	Mauritius	Bee-hive do

Scientific Name.	*Locality.*	*Common Name.*
Tentorium		Pavilion Trochus
Agrestis	China	Rustic do
Niger	Ditto	Black do
Cruciatus	Mediterranean	Cross-rayed do
Modulus	West Indies, Red Sea	Keel-whorl'd do
Declivis	Red Sea	Egyptian do
Viridulus		Necklace-grained
Perlatus		Pearly do

Family 3.—*With pillar smooth, and umbilicus toothed or crenated.*

Cylindraceus		Sub-conical do
Carneus		Flesh-color'd do
Areola		Red square-spotted

Family 4.—*With pillar and umbilicus crenated.*

Pharaonis	Red Sea, Mediterranean, East Indies	Strawberry do
Corallinus	Magdalen Isles	Coral bead do
Guineensis	Guinea	Guinea do
Urbanus		Purple-striped do

Family 5.—*Shell depressed, with the umbilicus large, pervious, and crenated, in which the course of the whorls is strongly marked.*

Perspectivus	Amboyna	Staircase do
Perspectiviunculus		Small staircase do
Infundibuliformis		Funnel-formed do
Hybridus	Mediterranean	Mongrel do
Stramineus	Tranquebar	Straw-color'd do
Indicus	East Indies	Indian do

DIVISION II.—*Shell imperforate, erect.*

FAMILY 1.—*With the pillar smooth.*

Scientific Name.	*Locality.*	*Common Name.*
Grandinatus	South Seas	Studded Trochus
Tuber	Mediterranean, W. Indies	Large mottled do
Melanastomus	Southern Ocean	Black throated do
Striatus	Mediterranean, Britain	Striated do
Minutus	Britain, France, Morocco	Crimson tip do
Punctulatus	W. Ind., France, Morocco	Rose-color'd do
Conulus	Mediterranean	Conical do
Zizyphinus	Ditto, Britain, Red Sea	Livid do
Papillosus	Britain, Mediterranean, E. Indies	Granulated do
* Undatus	California	Undulated do
Granatum	New Zealand	Tiger do
Virgineus	Magellan, New Zealand	Ringed do
Diaphanus	New Zealand	Thin do
Selectus	Ditto	Red & white do
Purpurascens		Purple do
Imbricatus	West Indies	Imbricated do
Cælatus	Ditto	Scaly do
Gibberosus	New Zealand	Olive-green do
Virgatus	East Indies, Amboyna	Rose-striped do
Cookii	New Zealand	Cook's do
Iris	Ditto	Iris do
Elegans	Ditto	Elegant do
Notatus	South Seas	Marked do
Ziczac	Britain, West Indies	Ziczac do
Obtusus	East Indies	Blunt do
Crocatus		Saffron color'd do
Hortensis	Southern Climates	Garden do

FAMILY 2.—*With the pillar toothed.*

Labeo	Amboyna, South Seas	Double-lipp'd do
Asper	New Zealand	Rugged do
Quadricarinatus	Mediterranean	Four-keeled do

Scientific Name.	*Locality.*	*Common Name.*
Tessellatus	St. Croix, Naples	Tessellated Troch
Turbinatus	Mauritius, Mediterranean	Turbinated do
Argyrostomus	New Zealand, Arabia	Silver-mouth'd do
Merula	China, South Seas	Chinese do
Crassus	Britain	Heavy do
Americanus	America	American do

FAMILY 3.—*With the pillar twisted.*

Mauritianus	Mauritius, New Guinea	Great-tooth'd do
Fenestratus	Amboyna, Frederick's Isl.	Small-tooth'd do
Pyramis	South Seas, East Indies	Obelisk do
Dentatus	Red Sea, Guinea	Sugar-loaf do

FAMILY 4.—*Shell convex, smooth, with a thick vitreous matter which covers the centre of the base,*

Vestiarius	Mediterranean, Cape of Good Hope, India	Flattened do

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DIVISION III.—*Shell tapering, with the pillar exserted, and the shell falling to one side when placed upon its base.*

FAMILY 1.—*With pillar twisted.*

Telescopium	East Indies	Telescope do
Terebellus	West Indies	Little augur do
Dolabratus	Africa	Zebra do

FAMILY 2.—*Pillar straight.*

Minute Shells.

Punctatus	Mediterranean	Dotted do
Striatellus		Violet lipp'd do

Reversed Shells.

Scientific Name.	*Locality.*	*Common Name.*
Perversus ·······	Mediterranean ·········	Reversed Trochus
Pusillus ········	East Indies ···········	Minute ··· do ··
Undulatus ······	Ditto·················	Waved ··· do ··
Ventricosus ·····	Ditto ·················	Bellied ··· do ··
Annulatus ······	Ditto ·················	Annulated · do ··
Lunaris ········	······················	Horn-color'd do ··

TURBO.—WREATH, OR TURBAN-SHELL.

DESCRIPTION OF PLATE XXVIII.

DIV. II.—*Fam.* 6. Fig. 1. T. chrysostomus.
DIV. III. *Fam.* 2. Fig. 5. T. muricatus. DIV. V. *Fam.* 1. Fig. 2. T. scalaris.
DIV. IV. Fig. 4. T. delphinus. DIV. IX. Fig. 3. T. archimedis.

Shell univalve, spiral, solid; aperture contracted, orbicular, entire.

THE greater number of the shells of this beautiful genus are solid and ponderous, and many, when decorticated, exhibit splendid iridescent colors. They are distinguished from the Trochi by the suborbicular form of the aperture.

The first division has the pillar margin of the aperture dilated, and the pillar imperforate. Among the leading species may be mentioned the T. obtusatus, T. neritoideus, and T. littoreus, or common Periwinkle.

The next division comprises the solid and imperforated species, of which the most characteristic are the T. petholatus, T. smaragdus, T. chrysostomus, T. pagodus, and T. calcar. The T. marmoratus and T. olearius sometimes attain a considerable size.

The third division differs from the preceding, in having the pillar perforated or umbilicated: the T. pica being a common shell, and well known, may be referred to as strikingly illustrating the character of this class: the T. margaritaceus and T. argyrostomus are remarkable for the delicate coloring of their mouths.

The T. delphinus may be adduced as an example of the species of the fourth division.

The fifth division contains some of the most beautiful species of the genus: they are in general thin and transparent, and strongly marked by rows of elevated continuous ribs. The T. scalaris (the True Wentle-trap*), on account of its beauty and rarity, deserves a particular description. The shape of the shell (which is extremely elegant) is a spiral cone, formed by gibbous whorls, gradually decreasing from the base to the apex, unconnected by a columella; this circumstance, so completely opposed to the regular structure of other turbinated shells, has occasioned considerable doubt as to its classification, and some authors have even placed it among the Serpulæ. The whorls are divided, at regular distances, by rows of elevated, suboblique, longitudinal ribs, which in young shells have a semipellucid appearance. The color is usually a yellowish or brownish white. The T. clathrus, or False Wentletrap, is a very common shell, and much more taper and elongated than the T. scalaris. It has no umbilicus, and the whorls are closely united.

The sixth division greatly resembles the preceding in form, and is only distinguished by its whorls not being surmounted with elevated cancellations.

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* Wentle-trap is derived from a German word, Windle-treppe, signifying a winding stair-case.

The shells of the seventh division are celebrated for the beauty and variety of their coloring; the T. phasianus in particular, has its colors disposed in resemblance of the plumage of the Pheasant.

A considerable variation in form characterizes the eighth division; the shells being obtuse at both ends.

The similarity which exists between the shells of the ninth division and those of the corresponding class in the Strombus and Buccinum, is strikingly observable in the T. imbricatus, T. replicatus, T. acutangulus, T. duplicatus, and T. terebra; but the circular form of the mouth distinguishes them from the turreted species of the other two genera: their shape is that of a well proportioned spire, with thirty or forty whorls gradually diminishing, and terminating in a very acute point.

The last division contains the depressed species, of which may be particularised the T. nautileus: this shell is often found affixed to plants in stagnant waters.

Among the rare and beautiful species of the Turbines the T. scalaris and T. phasianus are the most conspicuous. The value of the T. scalaris depends upon its size and perfection, choice specimens having been sold for £30, while inferior may be purchased at 10*s*. The greater number of those species which are found in the South Seas are extremely rare.

The generic name, Turbo, is derived from the Latin, and has the same signification with the Greek derivative of the preceding genus.

The American, African and Indian Oceans, produce the greater number of species; a few only are found in the Mediterranean, European, and Northern Seas.

Division I.—*Shell imperforate, and the pillar lip flat.*

Family 1.—*With a smooth exterior.*

Scientific Name.	*Locality.*	*Common Name.*
Obtusatus	Northern Ocean	Blunt Turbo
Neritoides	Mediterranean	Nerite shaped do
Nicobaricus	Nicobar Isles	Nicobar do
Nigerrimus	New Zealand	Black do
Rudis	Norway, Britain	Sordid do
Punctatus	Goree	Punctured do
Petræus	Dorset, Devon	Small rock do
Fulgidus	Pembroke, Cornwall	Bronze-banded do

Family 2.—*With the exterior striated or ribbed.*

Littoreus	Britain, Norway	Periwinkle
Tenebrosus	England	Chocolate do
Crassior	Ditto	Coarse do
Jugosus	Ditto	Lineated do
Ethiops	New Zealand	Black & white do

Division II.—*Shell imperforate, solid.*

Family 1.—*With a smooth exterior.*

Personatus		Convex do
Petholatus	Amboyna, Mauritius	Serpent's skin do
Cidaris	Moluccas	Turban do
Helicinus		Green & purple
Imperialis	China	Imperial do

Family 2.—*With the exterior striated.*

Scientific Name.	*Locality.*	*Common Name.*
Cimex	Britain	Bug Turbo
Calathiscus	Ditto	Cancellated do
Cochlus	Mauritius, Asia, China	Cameleopard do
Smaragdus	New Zealand	Green do

Family 3.—*With the exterior granulated.*

Castaneus	West Indies	Chesnut do
Crenulatus		Crenulated do
Papyraceus	East Indies	Paper do

Family 4.—*With the exterior nodulous.*

Trochiformis	Southern Ocean	White grain'd do
Marmoratus	Asiatic Ocean, China	Marbled do
Sarmaticus	Moluccas, C. of G. Hope	Large knobbed
Olearius	India, Coromandel	Large keeled do
Coronatus	Moluccas, Nicobar Isles	Coronated do

Family 5.—*With the exterior ribbed or grooved.*

Canaliculatus	Moluccas, Philippines	Grooved do
Setosus	Mauritius	Leopard do
Sparverius	East Indies	Pearly mouth'd do
Spenglerianus	Ditto	Spengler's do

Family 6.—*With the exterior somewhat spinous.*

Chrysostomus	S. Seas, R. Sea, Amboyna	Golden-mouth'd
Tectum-persicum	Asiatic Ocean	Little pagoda do
Pagodus	Ditto, Amboyna	Pagoda do
Calcar	Amboyna, China	Spur do
Stellaris	South Seas	Starred do

Scientific Name.	*Locality.*	*Common Name.*
Aculeatus	Nicobar Isles	Painted Turbo
Stellatus		Spined do
Armatus	Mediterranean, Scotland	Armed do
Rugosus	East & West Indies	Rugged do
Cornutus	China	Large-horned do
Radiatus	Red Sea	Radiated do
Moltkianus		Moltkian's do

Minute Shells.

Semicostatus	Devon, Scotland	Ribbed do
Ruber	Pembroke, Cornwall	Red do
Vitreus	Cornwall	Glassy do
Punctura	West of England	Punctured do
Arenarius	Salcomb Bay	Sand do
Unifasciatus	Britain	Banded do
Nivosus	Devonshire	White do
Labiosus	Britain	Lipped do
Ulvæ	Ditto	Sea-weed do
Ventrosus	Ditto	Bellied do
Subumbilicatus	Weymouth	Yellow do
Cingillus	Britain	Girdled do
Interruptus	England & Wales	Streaked do
Semistriatus	Devonshire	Semi-striated do
Albulus	Greenland Seas	Pellucid do

DIVISION III.—*Shell umbilicated and solid.*

FAMILY 1.—*With the umbilicus toothed.*

Pica	West Indies, Sardinia	Magpie do
Nodulosus	Ditto	Nodulous do

FAMILY 2.— *The umbilicus without teeth.*

Scientific Name.	*Locality.*	*Common Name.*
Dentatus		Toothed Turbo
Muricatus	Southern Europe	Prickly do
Auricularis	Southampton	Eared do
Vinctus	Devonshire	Brown banded do
Quadrifasciatus	Cornwall, Swansea	Four banded do
Sanguineus	Mediterranean, Algiers	Scarlet do
Atratus	Nicobar Isles	Black grained do
Anguis	South Seas	Snake do
Diadema	New Zealand	Diadem do
Undulatus	Van Dieman's Land, New Holland	Waved do
Argyrostomus	Indian Ocean, Red Sea, Cape of Good Hope	Silver mouth do
Margaritaceus	Frederick's Island	Pearly do
Porphyrites	New Caledonia	Porphyry do
Mespilus	South Seas	Medlar do
Granulatus	Ditto, Nicobar Isles	Granulated do
Cinereus		Ash-color'd do
Torquatus	New Zealand	Thready do

DIVISION IV.—*Shell depressed, foliated, spinous or nodulous, and umbilicus large, pervious, and armed within.*

Delphinus	Asiatic Ocean, Mauritius, Amboyna	Dolphin do
Exasperatus	East Indies	Granulated do
Distortus		Distorted do

Division V.—*Cancellated.*

Family 1.—*Umbilicated.*

Scientific Name.	*Locality.*	*Common Name.*
Scalaris	China	Wentle-Trap

Family 2.—*Imperforated.*

Principalis	Coromandel	Many-ribbed do
Clathrus	Europe, America	Latticed do
Clathratulus	Britain	Little do
Lacteus	Mediterranean	Milky do
Pulcher	West Indies	Beautiful do
Ambiguus	Mediterranean	Doubtful do

Minute Shells.

Elegantissimus	Britain	Elegant Turbo
Simillimus	Island of Jura	Similar do
Parvus	Britain	Guernsey do
Striatulus	Mediterranean, England	Wrinkled do
Reticulatus	Pembroke, Kent	Netted do
Bryereus	Britain, West Indies	Bryer's do
Coniferus	Weymouth	Marginated do
Denticulatus	Ditto	Toothed do
Arcuatus	Guernsey	Margined do
Striatus	Cornwall, Devonshire, Ireland	Striated do
Costatus	England, Wales	Ribbed do
Unicus	Sandwich	Convex do
Indistinctus		Indistinct do

DIVISION VI.—*Shell with subcylindrical whorls, similar to the last division, but not cancellated.*

FAMILY 1.—*Umbilicated.*

Scientific Name.	*Locality.*	*Common Name.*
Crenellus		Crenated Turbo
Thermalis	Denmark, Britain, Pisa	Fresh water do
Labeo	Jamaica	White lipp'd do
Ligatus		Ligature do
Foliaceus		Leafy do
Limbatus	Coromandel	Shouldered do
Carinatus	Jamaica	Keeled do
Separatista	Indian Seas	Three-keeled do
Niveus	Nicobar Isles	Snowy do
Helicoides		Brown ziczac do

FAMILY 2.—*Imperforate.*

Crenatus		Crenated do
Elegans		Elegant do
Lincinus		Green & purple
Lunulatus		Moon-spotted do

DIVISION VII.—*Shell oblong, glossy, beautifully marked with various colors, and aperture sub-ovate.*

Phasianus	Van Dieman's Land	Pheasant do
Inflatus	Ditto	Inflated do
Pullus	Britain	Painted do

DIVISION VIII.—*Shell subcylindrical, obtuse at both ends, and aperture semi-ovate.*

FAMILY 1.—*Aperture toothed.*

Scientific Name.	*Locality.*	*Common Name.*
Uva	Coast of Bretagny	Berry Turbo
Mumia	America	Double-tooth'd do
Alvearia	St. Domingo, Guadaloupe	White-mouth'd do
Quinquedentatus	France	Five-tooth'd do
Tridens	Britain	Three-tooth'd do
Juniperi	Britain, Paris, Saxony	Juniper do
Muscorum	Europe, under moss	Moss do
Sexdentatus	West of England	Six-tooth'd do
Carychium	Britain	Minute-tooth'd do

Reversed Shells

Bidens	Britain, France, Italy	Double-tooth'd do
Laminatus	England, Europe	Laminated do
Biplicatus	Ditto	Double-plaited do
Corrugatus	Languedoc, Provence	Wrinkled do
Nigricans	England, France	Black do
Labiatus	Britain	Reversed do
Perversus	England	Reversed do
Quadridens	Paris, France	Four-tooth'd do
Vertigo	Sandwich, Denmark	Vertigo do

FAMILY 2.—*Aperture without teeth.*

Cylindrus	Jamaica	Cylindrical do
Croceus		Orange do
Sulcatus	Ceylon	Sulcated do
Corneus		Horny do
Reflexus		Reflected do
Auriscalpium	Mediterranean	Ear-picker do

Scientific Name.	*Locality.*	*Common Name.*
Politus	Britain	Polished Turbo
Subulatus	Ditto	Awl-shap'd do
Decussatus		Decussated do

DIVISION IX.—*Shell turreted.*

Imbricatus	Jamaica	Imbricated Screw
Replicatus	Tranquebar	Large do
Acutangulus	Ditto	Sharp-angled do
Duplicatus	Britain, Persia, Mediter.	Double ribbed do
Torcularis		Brown-spotted do
Obsoletus		Obsolete do
Exoletus	South of Europe, Britain	Ribbed do
Terebra	European Seas, Sweden	Augur do
Archimedis	China	Archimedes' do
Variegatus		Variegated do
Ungulinus	European Ocean	Doubtful do
Terebellum	Nicobar Isles	Little do
Annulatus		White do
Turris Thomæ	St. Thomas	Tower do

DIVISION X.—*Shell depressed.*

Nautileus	Britain, Germany	Nautilus Turbo
Cristatus	Denmark, Britain	Small crested do
Depressus	Cornwall, Devonshire	Minute flattish do
Serpuloides	Devonshire	Serpula do
Ludus	South Seas	Green-spotted do
Marginellus		Reflected lip do

HELIX.—SNAIL OR SPIRAL.

DESCRIPTION OF PLATE XXIX.

DIV. I. — *Fam.* 3. Fig. 3. H. gualteriana.
DIV. IV.—*Fam.* 1. Fig. 1. H. dextra. DIV. VI.—Fig. 5. H. glauca.
DIV. V.—Fig. 2. H. amarula. DIV. VII.—Fig. 4. H. scarabæus.
DIV. XII.—*Fam.* 1. Fig. 6. H. decollata.

Shell univalve, spiral, subdiaphanous, brittle; aperture contracted, semilunar, or roundish.

THE numerous species which compose this extensive genus are principally land or fresh water shells, a very few only being the produce of the ocean. They are generally of a delicate and brittle structure, and sometimes transparent.

Among the carinated Helices, which constitute the first division, may be particularised the H. lapicida, H. marginata, and H. cicatricosa. The more compressed or flattened species are usually called Antique Lamps; the H. lampas, H. carocolla, and H. lucerna are illustrative specimens.

The H. cornea and H. vortex are characteristic of the two families of the depressed species of the second division.

The third division is distinguished by the sub-lunate form of the aperture, and contains some of the most rare and beautiful species of the genus. Of these the H. sultana and H. hæmastoma are most celebrated, the latter, in particular, for its elegant bandings and rose-colored lip. The H. pomatia is an inhabitant of the woods of Europe, and was first introduced into this country by Sir Kenelm Digby, for medical purposes. The animal (which was considered a luxury by the Romans) is oviparous, and very tenacious of life; towards winter it covers its aperture with a calcareous lid, resembling an operculum, and remains in a torpid state until the spring.

The shells of the fourth division have a ventricose form, and resemble those of the sixth division of the genus Bulla, as is there observed. The H. ovalis and H. oblonga are the most characteristic; the eggs of the animal are perfectly elliptical, and are nearly the size of those of the common sparrow.

The H. amarula of the fifth division is the only coronated species of the genus.

The shells of the sixth division are very globose, and have their whorls much produced: the H. ampullacea may be referred to as an example.

The animal of the H. ianthina, of the eighth division, has the property of emitting a phosphorescent light, and stains the hand of a purple color, not easily removed: they are found in great numbers, floating on marine substances.

The eleventh division contains those species which are usually found in stagnant waters; they have a ventricose form, and are remarkably fragile and pellucid.

This genus has also its turreted class, forming the twelfth division. The H. decollata and H. columna are illustrative of the two families.

The most rare and beautiful species are the H. ringens, H. tricarinata, H. otis, H. hæmastoma, and H. columna.

There are many species of this genus which inhabit aquatic plants, others are found on trees and shrubs, and some harbour in decayed wood.

The term ἕλιξ (Helix) as applied to this genus, is extremely indefinite, it refers only to the *spiral* form of the shell, and might with equal propriety be applied to any of the other turbinated genera.

DIVISION 1.—*Shell with a carinated margin on the body-whorl.*

FAMILY 1.—*Umbilicated and depressed.*

Scientific Name.	*Locality.*	*Common Name.*
Lapicida	Europe	Rock Snail
Marginata	Jamaica	Margined do
Cicatricosa	S. Seas, China, Jamaica	Reversed do
Albella	Europe, North America	Whitish do
Albina		Minute-white do
Rotundata	England, Denmark, France	Small radiated do
Lævipes	Guinea, Tranquebar	Reverse-whorl'd
Exilis	Tranquebar	White-striped do
Cantiana	Britain, (particularly Kent)	Kent do
Rufescens	England, Saxony	Reddish do
Crenulata	England, France	Black-tipp'd do
Annulata		Ringed do
Fontana	England	Fresh-water do
Turcica	Mogadore, Morocco	Turkish do

FAMILY 2.—*Umbilicated and convex.*

Cornu	New Zealand	Large horn do
Oculus-capri	Asia, Pulo Condore	Goat's eye do
Involvulus		White-reflected
Striatula	Algiers	Striated do
Algira	Africa, Amboyna, Jamaica	Yellowish do
Leucas	Africa	Purple-lined do
Trochoides	East Indies	Angular-mouth do
Incarnata	Denmark, Germany	Flesh-color'd do

Scientific Name.	*Locality.*	*Common Name.*
Maculosa		Spotted Snail
Corrugata	Otaheite, Lucania	Wrinkled do
Pellis-serpentis	South America	Snake's-skin do
Avellana	New Zealand	Hazel nut do

FAMILY 3.—*Imperforated and depressed.*

Lampas		Orange-lip do
Carocolla	America	Large brown do
Gualteriana	Spain	Gualter's do
Faba	Otaheite	Bean-shap'd do

FAMILY 4.—*Imperforated, and convex or ventricose.*

Vermiculata	Italy, Portugal	Rough dotted do
Cornu-militare	Germany	Bugle-horn do
Gothica	Sweden	Doubtful do
Scabra	Jamaica	Rough do

FAMILY 5.—*Umbilicated, and aperture toothed.*

Punctata	Virginia, Saxony	Punctured do
Unidentata	Ceylon	One-tooth'd do

FAMILY 6.—*Imperforated and aperture toothed.*

Sinuata	America, Barbad. Jamaica	Sinuous do
Lucerna	East Indies, Jamaica	Lamp do
Lychnucus	Jamaica	Top-shap'd do
Cepa	Jamaica	Onion do
Nux-denticulata		Nut do
* Verruca		Wart-lipped do

FAMILY 7.—*Imperforate and convex, with the aperture toothed and turned upwards.*

Ringens	Brazils	Grinner do

FAMILY 8.—*Umbilicated and depressed, aperture ear-shaped, distorted, toothed, and sinuated, with a marginated lip.*

Scientific Name.	*Locality.*	*Common Name.*
Otis ··········	East Indies ············	Plaited Lamp ··

DIVISION II.—*Shell depressed, and whorl coiled horizontally.*

FAMILY 1.—*Umbilicated.*

Cornea ·········	Stagnant waters in Europe	Horn Snail ···
Similis ·········	Denmark, Berlin ·······	Dotted ··· do ··
Spirorbis ·······	Britain, France ·········	Small concave do
Polygrata ······	·······················	Many-whorl'd do
Contorta ········	Europe ················	Coiled ··· do ··
Alba ··········	England, Denmark ····	White ···· do ··
Crystallina ······	Ditto, ditto ········	Crystal ··· do ··
Cornu-arietis ···	Amboyna ··············	Ram's horn do ··
Cornu-venatorium	·······················	Hunter's horn do

FAMILY 2.—*Imperforate and keeled.*

Planorbis ······	Europe ················	Notch-lipp'd do ··
Complanata ····	Ditto ·················	Flat-umbilicated
Vortex ·········	Ditto ·················	Vortex ···· do ··

DIVISION III.—*Shell with the aperture sub-lunate.*

FAMILY 1.—*Umbilicated and depressed.*

Ericetorum ·····	England, France, Italy ··	Heath ···· do ··

Scientific Name.	*Locality.*	*Common Name.*
Strigata	Italy, England	Girdled Snail
Incisa	East Indies	Slit margin'd do
Pisana	England, France, Spain	Pisa do
Nitida	England, France, Denmark	Pellucid do
Tenuis	Penzance, Newbury	Thin do
Cellaria	Inhabits cellars	Cellar do
Obvoluta	France, Saxony, Italy	Small white lipp'd
Zonaria	Barbary, South of Europe	Zoned do
Striata	Saxony	Striated do
Ungulina	India	Tawny-horn do
Itala	Europe	Brown-banded do
Citrina	Jamaica	Citron do
Rapa		Single band do

Minute Shells.

Minima		Minute do
Hispida	Europe	Hairy do
Umbilicata		Umbilicated do
Costata	Denmark	Cross-ribb'd do
Pulchella		Striated do
Trochulus	England	Trochus shap'd do
Aculeata	Ditto, Denmark	Prickly do

FAMILY 2.—*Umbilicated and sub-globular.*

Castanea		Chesnut do
Globulus	Tranquebar, Madagascar	Globular do
Lucana	Tranquebar	Transparent do
Arbustorum	England, Denmark	Single streaked do
Fruticum	Denmark	Six-whorl'd do
Fulva	Ditto	Amber do
Nemorensis	East Indies	Polished do
Vittata	Coromandel	Ribbon do
Lusitanica	South of Europe	Lusitanian do
Hispana	Ditto	Spanish do
Vitrea		Brittle do
Pomatia	Britain	Edible do

Scientific Name.	*Locality.*	*Common Name.*
Cincta		Red-banded Snail
Rosacea		Flesh-color'd do
Extensa		Four-whorl'd do

FAMILY 3.—*Imperforate and sub-globular.*

Jamaicensis	Jamaica	Jamaica do
Rhodia	Island of Rhodes	Rhodian do
Albolabris		White lipped do
Nemoralis	Europe	Varied do
Cartusiana	Near Paris	Carthusian do
Lucorum	Europe	Brown lipp'd do
Grisea	Europe	Grey do
Sultana	New Zealand	Variegated do
Hæmastoma	Ceylon	Rose-lipped do
Lactea	Jamaica	Milky do
Picta	Amboyna, China	Painted do
Versicolor		Diversified do
Aperta	St. Croix	Gaping do
Fusca	Britain	Brown do
Pellucida	Saxony, Denmark	Transparent do

FAMILY 4.—*Imperforate, and spire rather produced.*

Vivipara	Britain	Viviparous do
Fasciata	Italy	Banded do
Dissimilis	Tranquebar	Black-lipped do
Angularis	Canton	Angular do

FAMILY 5.—*Umbilicated and spire produced.*

Scalaris	France	Produced do

DIVISION IV.—*Shell ovate, oblong, ventricose, and aperture ovate*

FAMILY 1.—*Umbilicated.*

Ovata	East Indies, Tranquebar	Oval do

Scientific Name.	*Locality.*	*Common Name.*
Lutaria		Mud Snail
Oblonga	East & W. Indies, Africa	Oblong do
Flammea	Guinea	Zebra do
Kambeul	Senegal	Kambeul do
Pileus		Red& yel'w strip'd
Trifasciata	Tranquebar	Three-banded do
Bontia	Ditto	Brown mouth'd do
Labiosa	India	Lipped do
Otaheitana	Otaheite	Otaheite do
Læva	East Indies	Party-color'd do
Dextra	West Indies	Yellow do
Stagnorum	Holland	Barley-corn do
Obscura	Britain	Small brown do
Lackhamensis		Lackham's do
Detrita	Italy	Smooth rayed do
Guadaloupensis	Guadaloupe	Guadaloupe do
Substriata	Britain	Substriated do

FAMILY 2.—*Imperforate.*

Recta		Straight do
Interrupta		Tesselated do
* Papyracea	Rio Janeiro	Fragile do
Arenaria	Rimini	Minute sand do
Aspera	Coromandel	Rough-striated do
Sub-cylindrica	Europe	Sub-cylindrical
Pella	Iceland	Small red brown
Pupa	Mauritiana	Little do
Barbara	Algiers	Barbary do

DIVISION V.—*Shell ovate-oblong, with the whorls transversely keeled and coronated.*

Amarula	Asia, Ganges	Mitre do

Division VI.—*Shell sub-globular, ventricose, umbilicated, and aperture ovate-oblong.*

Scientific Name.	*Locality.*	*Common Name.*
Ampullacea	East & West Indies	Smooth-girdled S.
Urceus	America	Cocoa-nut do
Glauca	Guadaloupe	Greyish brown do
Lacuna	Britain	Gutter lipp'd do

Division VII.—*Shell with the whorls longitudinally angulated on both sides.*

Scarabæus	Asia, Amboyna, China	Cockchafer do
Afra	Goree	African do

Division VIII.—*Shell umbilicated, roundish, obtuse, diaphanous, brittle, and aperture sub-triangular.*

Ianthina	S. Seas, Madagascar	Violet do
Globosa	Madagascar	Globose do

Division IX.—*Shell conical, obtuse, distorted, the side opposite the aperture gibbous, aperture compressed.*

Lyonetiana	Isle of France	Lyonet's do

Division X.—*Shell sub-umbilicated, pyramidal, and summit obtuse.*

Epystylium	South Seas	Bee-hive do
Papilla		Nipple do

DIVISION XI.—*Shell ventricose, pellucid, and aperture ovate.*

FAMILY 1.—*Imperforate.*

Scientific Name.	*Locality.*	*Common Name.*
Stagnalis	Britain	Lake Snail
Fragilis	Denmark	Brittle do
Palustris	Britain	Marsh do
Fossaria	Britain	Ditch do
Albicans	Hamburg	White do
Putris	Britain	Thin yellowish do
Peregra	Fredericksburg, Seine	Horny do
Limosa	Europe	Rough do
Truncatula	Saxony	Truncated do
Inflata	Ditto	Inflated do
Opaca	Hamburg	Opaque do
Tentaculata	Europe	Dusky do
Lutea	Devonshire	Yellow do
Sicula	Sicily	Sicilian do
Glutinosa	Britain	Membranous do
Lævigata	Ditto	Smooth flesh color
Balthica	Baltic	Baltic do
Neritoidea		Nerite-shaped do.

FAMILY 2.—*Umbilicated.*

Repanda	Thangelstadt	Ventricose do
Canalis	Britain	Channelled do
Auricularia	Britain	Eared do

DIVISION XII.—*Turreted.*

FAMILY 1.—*Apex truncated.*

Consolidata	Surinam	Flat tipp'd do
Decollata	South of Europe	Truncated do
Truncata	St. Domingo	Flag do

Scientific Name.	*Locality.*	*Common Name.*
Calcaria	East Indies	Chalky Snail
Contorta-plicata	Denmark	Coiled plaits do

FAMILY 2.—*Apex acute.*

Scientific Name.	*Locality.*	*Common Name.*
Cuspidata	India	Pointed do
Plicaria		White-spotted do
Undulata		Waved do
Vibex		Red-marked do
Crenata	Madagascar	Crenated do
Fuscata	East Indies	Brown clouded do
Peregrina	Britain, West Indies	Eight-whorl'd do
Octona	West Indies	Slender do
Columna	Guinea, Jamaica	Column do
Incumbens		Tawny-strip'd do
Acuta	Britain, France, Barbary	Double-banded do
Undata	New Holland	Undulated do
Fluviatilis	Coromandel	River do
Turbinata	Danube	Turbinated do
Carinula	Guadaloupe	Brown lin'd do

DIVISION XIII.—*Shell depressed, spire flattish, aperture very large, exposing the whole inside.*

Scientific Name.	*Locality.*	*Common Name.*
Perspicua	Mediterranean	Large mouth do
Haliotoidea		Venus' ear do

NERITA.—Nerite or Hoof-Shell.

DESCRIPTION OF PLATE XXX.

Div. I.—	*Fam.* 1.	Fig. 5.	N. vitellus.
	Fam. 2.	Fig. 6.	N. canrena.
	Fam. 3.	Fig. 4.	N. albumen.
Div. II.—	*Fam.* 1.	Fig. 2.	N. corona.
	Fam. 2.	Fig. 3.	N. fluviatilis.
Div. III.—	*Fam.* 2.	Fig. 1.	N. polita.
	Fam. 2.	Fig. 7.	N. peloronta.

Shell univalve, spiral, gibbous; aperture semiorbicular or semilunar; pillar-lip transversely truncate, flattish.

THERE is considerable variation in the form and markings of the Neritæ: some are spiral, with prominent whorls; others have their whorls partly or wholly concealed: some again are umbilicated, while others are perfectly entire and solid; and many have the umbilicus partially covered by a repand lip, or fissurated nodule.

The back of the shell is sometimes covered with strong, elevated ribs; and in a few species with spines; it is often only minutely striated, and has frequently a perfectly smooth surface, and a brilliant polish.

Among those species which are umbilicated, and form the first division, may be mentioned the N. vitellus, N. canrena, (of which there are many beautiful varieties), N. cancellata, N. glaucina, and N. mammilla;

the most common variety of the latter shell is entirely white, and has the appearance of porcelain; but the rarer inclines to a brownish orange.

The species which constitute the next division are imperforated and toothless: of these the N. corona, which has its whorls crowned with spines of unequal length, and the N. fluviatilis, may be adduced as examples.

The species of the third division are distinguished from those of the preceding, by having one or both of the lips toothed. The N. pulligera, N. polita, N. undulata, N. exuvia, and N. chamæleon, are characteristic of the several families.

The most beautiful species of the genus is the N. polita, of which the most rare variety has three or four bright crimson bands, on a dark mottled ground, running in a parallel direction with the convolutions of the shell; they are frequently worn as ornaments by the Indians.

The different species of Nerita are principally produced in the African, American, Indian, and European seas.

This genus has received the name of Νηρίτης from its species having been supposed by the antient naturalists to have the power of *swimming* in the ocean.

DIVISION I.—*Shell umbilicated.*

FAMILY 1.—*With the umbilicus rather large, nearly pervious.*

Scientific Name.	*Locality.*	*Common Name.*
Vitellus	Mauritius, Amboyna, Asia	Clouded yellow N.
Punctata	Mediterranean	Punctured do
Cruentata	Tranquebar	Red-spotted do
Rugosa	West Indies	Wrinkled do
Vittata	Morocco	Ribbon do
Pallidula	England	Pallid do

FAMILY 2.—*With the umbilicus bifid.*

Canrena	All parts of the world	Taby-cat do
Cancellata	West Indies	Latticed do
Sulcata		Grooved do
Spadicea	Mauritius	Chesnut do
Rufa	East & West Indies	Reddish do

FAMILY 3.—*With the umbilicus nearly closed by a callus, or by the inner lip.*

Glaucina	Europe, Africa, America, East Indies	Livid do
Orientalis	E. Indies, Bay of Naples	Eastern do
Maroccana	Africa, W. Indies, Naples	Wave-striped do
Arachnoidea		Spider's web do
Albumen	Amboyna, C. G. Hope, Moluccas	Liver color'd do
Mammilla	Do. Mauritius, Tranquebar	Breast do
Papilla	N. Zealand, Tranquebar	Nipple do
Melanostoma	Mauritius, West Indies	Brown pillar do
Ambigua	Mediterranean	Ambiguous do

FAMILY 4.—*With the umbilicus toothed.*

Fulminea	Senegal, Moluccas	Ziczac do

DIVISION II.—*Shell imperforate and toothless.*

FAMILY 1.—*Spinous.*

Scientific Name.	*Locality.*	*Common Name.*
Corona	Ganges, China	Crowned Nerite

FAMILY 2.—*Without spines.*

Radula	Amboyna, Tranquebar	Rough-ribbed do
Magdalena	Magdalen Isles	Magdalen do
Cornea	Red Sea	Horny do
Fluviatilis	Europe	River do
Littoralis	Europe	Strand do
Lacustris	Ditto	Lake do
Dubia		Black mark do
Marginata		Margined do

DIVISION III.—*Shell imperforate and toothed.*

FAMILY 1.—*With the inner lip toothed.*

Pulligera	India, Amboyna, So. Seas	Reddish do
Aculeata	East Indies	Spinous do
Pupa	Jamaica	Black & white do
Bidens	New Zealand	Double tooth'd do
Flavescens	Nicobar Isles	Yellowish do
Viridis	West Indies	Green do
Virginea	Mediterranean, W. Indies	Guinea-fowl do
Turrita	West Indies	Turreted do
Piperina	Malabar	Triangular spott'd
Larva	Amboyna	Broad band do
Ascensionis	Island of Ascension	Ascension do
Malaccensis	Malacca	Malacca do
Hieroglyphica	East Indies	Hieroglyphic do

Family 2.—*With both lips toothed or crenated.*

Scientific Name.	*Locality.*	*Common Name.*
Polita	Asia, South Seas	Smooth Nerite
Peloronta	Banda, W. Indies, Moluccas	Bleeding-tooth do
Maxima		Great do
Histrio	East Indies	Harlequin do
Lineata	Malacca	Lined do
Versicolor	West Indies, Africa	Many color'd do
Pica	Red Sea, Amboyna	Magpie do
Stella	East Indies	Star do
Tessellata	W. Indies, Magdalen Isles	Tessellated do

Family 3.—*With the inner lip toothed and wrinkled.*

Atrata	West Indies, Goree	Smooth black do
Nigerrima	South Seas	Black do
Antillarum	West Indies	Wrinkle-lip do
Plicata	Mauritius, Tranquebar	Horse-tooth do
Flammea	West Indies	Flame do
Grossa	Asiatic Ocean, Moluccas	Red thrush do
Undulata	East Indies	Thin wav'd do
Quadricolor	Red Sea	Four-color'd do

Family 4.—*With the inner lip toothed and tuberculated.*

Albicilla	Manilla, China, Hitoe	Pimple-lip do
Exuvia	Jamaica, Asia, America	Exuvia do
Fulgurans	West Indies	Lightning do

Family 5.—*With the inner lip toothed, wrinkled, and tuberculated.*

Plexa	Tranquebar, Ceylon, Nicobar	Thrush do
Costata	Nicobar Isles	Ribbed do
Chamæleon	Banda, Moluccas	Chameleon do
Undata	East Indies, Africa	Waved do

HALIOTIS.—SEA-EAR OR EAR-SHELL.

DESCRIPTION OF PLATE XXXI.

DIV. I.—*Fam.* 1. Fig. 2. H. chracherodii. *Fam.* 1. Fig. 4. H. iris.
Fam. 1. Fig. 5. H. pulcherrima. *Fam.* 2. Fig. 3. H. asinina.
DIV. II.—Fig. 1. H. imperforata.

Shell univalve, dilated, ear-shaped, generally with a longitudinal row of orifices along the surface; spire lateral, and nearly concealed.

THE general form and appearance of the shells of this beautiful genus are so similar, that it is often difficult to distinguish and arrange the species. In shape they greatly resemble the human ear; the only exception is the H. asinina, which has received its name from being more elongated than any of the other species.

The exterior is generally composed of rugæ or tuberculations, over which pass approximate, elevated striæ: but as it is usually loaded with marine substances, or much decayed and worn, this character is seldom observable. The interior of the Haliotis is remarkable for its natural and splendid iridescence, which forms a striking contrast with the sombre appearance of its exterior. The iridescent colors are exhibited in the highest splendor, in the H. iris, H. rufescens, and H. splendens.

The back of the Haliotides of the first division is furnished with a row of orifices near the margin, varying in number from eight to thirty-eight; of these from three to seven are generally open, and the others perfectly closed. The H. parva is remarkable for the large elevated rib or angle on its back.

The second division consists of the imperforated species. The H. imperforata, which has an ovate form, with an exserted spire, and prickly ribs, is a characteristic specimen.

The species which may be noticed as rarieties of the genus are the H. pulcherrima, H. glabra, H. australis, H. parva, H. imperforata, and H. impertusa.

The Haliotides are found on the shores of Europe, Africa, and India, where, like the Limpets, they adhere to the rocks, from which they are with difficulty removed.

The name of the genus is derived from ἂλς ὦτα *sea-ears*, in reference to the habitat and form of the shell.

DIVISION I.—*Shell perforated.*

FAMILY 1.—*Roundish or ovate.*

Scientific Name.	*Locality.*	*Common Name.*
Midæ	East Indies, Mauritius, Cape of Good Hope	Midas' Ear
Pulcherrima	King George's Sound	Beautiful do
Virginea	New Zealand	Iridescent do
Tuberculata	Europe, West Indies	Common do
Striata	Asiatic Ocean, Barbary	Wrinkled do
Bistriata	Africa	Double-lined do
Varia	East Indies	Rough striated do
Marmorata	Africa, East Indies	Marbled do
Glabra	South Seas	Smooth mottled
Australis	New Zealand	Rough plaited do
Gigantea	N. Holland, N. S. Wales	Gigantic do
Iris	New Zealand	Iris do
Cracherodii	California	Cracherode's do

Scientific Name.	*Locality.*	*Common Name.*
Ovina		Chesnut marble E.
Parva	Africa, Mauritius, China	Small orange do
Rufescens	South Seas	Magnificent do
* Splendens	California	Splendid do
* Corrugata	Ditto	Corrugated do

FAMILY 2.—*Oblong.*

Asinina	I. Ocean, Amboyna, China	Ass's Ear do

DIVISION II.—*Shell imperforate.*

Imperforata	East Indies, Red Sea	Carinated do
Impertusa	E. Indies	Imperforate do
* Dubia	South Seas	Doubtful do

ORDER III.

Univalves.

II. WITHOUT A REGULAR SPIRE.

PATELLA.—Limpet or Dish-Shell.

DESCRIPTION OF PLATE XXXII.

Div. I.—Fig. 4. P. testudinaria.
Fig. 7. P. clealandi.
Div. III.—Fig. 5. P. caffra.
Div. IV.—Fig. 2. P. ungarica.
Div. V.—Fig. 1. P. fissura.
Div. VI.—Fig. 3. P. equestris.
Div. VII.—Fig. 6. P. porcellana.

Shell univalve, subconic, shaped like a bason, without a spire.

THE Patellæ, though a very numerous genus, present but little variation in form, the species, with very few exceptions, generally approximating to the shape of a cone, with its apex a little blunted. The colors and structure of their exterior are extremely diversified; some being perfectly smooth, while others are strongly granulated; and many are deeply striated, or covered with elevated tuberculated ribs.

The distinctions of the divisions are strongly marked: the first comprises the species which have the margin entire, and are not pointed at the summit. Those most deserving notice are the P. testudinaria, which has generally its interior of a silvery hue; the P. areolata, P. flammea, and P. compressa, the latter being remarkable for its narrow and lengthened form.

The shells of a compressed form, and having their margins angularly or irregularly toothed, constitute the second division; such are the P. saccharina, P. granularis, P. granatina, and P. sanguinolenta. The P. vulgata is the Common Limpet, so abundantly found on the British and European shores.

The third division includes those species which, on account of the perforation in the summit, are usually called Key-hole Limpets. The principal are the P. græca, P. nimbosa, P. caffra, P. picta, P. perforata, and P. macroschisma.

The next division comprehends those species which have the summit pointed and recurved: the P. ungarica, the most remarkable, is a beautiful shell, and, from its similarity of shape, called the Fool's-cap:—the exterior is usually of a pale fawn color, and the outer margin is bordered with a fringed epidermis; when the interior is of a very bright pink color, this Limpet is considered more valuable. The P. lutea has some resemblance to an Haliotis, but the flatness and ear-shaped form of the latter genus, is a sufficient distinction.

The shells of the fifth division have a marginated fissure, which is most conspicuous in the P. fissura.

The curious internal appendage which characterizes the shells of the sixth division, is strikingly observable in the P. equestris, P. sinensis, and P. duplicata; these are commonly designated Cup-and-saucer Limpets.

The last division has a very peculiar character, the interior being furnished with a transverse partition, giving the shell the appearance of a slipper; the P. neritoidea, P. porcellana, and P. fornicata resemble Nerites.

The rarest shells of this genus are the P. persona-ta, P. trochiformis, P. mytiliformis, and P. macroschisma.

The Limpets are usually found adhering by their base to rocks, stones, fuci, and other marine substances, from which they are not easily detached. They inhabit the Indian, Southern, European, Northern, and Mediterranean seas, the American and Indian Islands, the Atlantic, and the shores of China, Greenland, and Iceland.

The Patellæ derive their name from their resemblance to a *little dish* or *bason* (Patella).

Division I.—*Shell with the summit obtuse, and the margin entire.*

Scientific Name.	*Locality.*	*Common Name.*
Pellucida ·······	Britain, Norway, Mediterranean ···········	Pellucid Limpet ·
Lævis ··········	England, Northern Ocean	Smooth ··· do ··
Radians ········	New Zealand, Terra del Fuego ···············	Grey-mottled do
Rota ···········	E. & W. Indies ········	Roundish ·· do ··
Testudinaria ····	Norway, East Indies ····	Tortoise-shell do ·
Clealandi ·······	Bangor, Ireland ········	Clealand's · do ··
Testudinalis ···	Norway, St. Domingo ··	Small tortoise-shell

Scientific Name.	*Locality.*	*Common Name.*
Compressa	Mauritius, S. Seas, C. G. Hope	Flat-sided Limpet
Mytiliformis	Ferroe Islands	Muscle ... do ..
Afra	Cape Manuel, Goree	African ... do ..
Rustica	Portugal, Jamaica, China	Narrow ribbed do
Jamaicensis	Jamaica	Jamaica ... do ..
Stellifera	South Seas	Starred ... do ..
Fusca	Magellan, Falkland Isles	Sugar-loaf . do ..
Areolata	Magellan	Pyramidal . do ..
Flammea	Falkland Isles	Agate .....do ..
Indica	East Indian Seas	Indian .... do ..
Vitellina	....	Yellow .... do ..
Lævigata	....	White-tipp'd do .
Surinamensis	Surinam	Surinam .. do ..
Punctulata	....	Dotted .... do ..
Notata	Mediterranean, W. Indies, Africa	Wheat-sheaf do .
Cruciata	....	White cross do ..
Reticulata	Mediterranean	Reticulated do ..
Cæca	Norway	White border'd do
Virginea	Ditto, Swansea	Purple rayed do
Tessellata	Norway	Tessellated do ..
Fulva	Norway	Orange tawny do
Ambigua	New Holland	White duck's bill
Umbellata	China, Mauritius	Parasol ... do ..

DIVISION II.—*Shell with the margin angular, or irregularly toothed.*

Laciniosa	Amboyna	White-eyed do ..
Plicata	....	Plaited .... do ..
Monopis	West Indies	Chesnut streaked
Saccharina	Amboyna, China, C. G. Hope	Star ...... do ..
Angulosa	Provence	Angular .. do ..
Repanda	Island of Cerigo	Small sun . do ..
Tenuis	....	Thin amber do ..
Margaritacea	Iceland, Patagonia	Great sun . do ..

Scientific Name.	*Locality.*	*Common Name.*
Barbara	Falkland Isles	Toothed Limpet
Cypria	Mauritius, New Zealand	White-ribb'd do
Oculus-Capri	Mediterranean, Africa, France	Goat's eye do
Pentagona		Five-angled do
Granularis	Mauritius, C. G. Hope	White-grained do
Granatina	S. Europe, Mauritius, do.	Garnet do
Chlorosticta	Jamaica	Pigeon's throat do
Tigrina		Tiger do
Ornata	New Zealand	Adorned do
Melanogramma		Black ribb'd do
Ferruginea	Magellan, Falkland Isles	Rusty do
Crenata	Africa, Lisbon, Mediter.	Little grey do
Sanguinolenta	Africa, Mauritius	Rose-streaked do
Ulyssiponensis	Lisbon	Buckler do
Radiata	Nicobar & Molucca Isles	Radiated do
Lugubris	Provence, Cyprus	Black do
Vulgata	Europe	Common do
Cærulea	Ditto, Mediterranean	Blue do
Tuberculata		White pimpled do
Cochlear	New Zealand	Horse shoe do

DIVISION III.—*Shell with the summit perforated.*

Noachina	Norway, Greenland	Perforated do
Pustula	Mediterranean, W. Indies	Doubtful do
Græca	West Indies, Africa	Cancellated do
Atricapilla	Barbadoes	Black ring do
Nodosa	West Indies	Tuberculated do
Perforata	Ditto	Partridge do
Caffra	C. G. Hope	African do
Pileolus		Open cap do
Scutellum	Falkland Isles	Scutcheon do
Picta	Ditto, Magellan	Painted do
Nimbosa	W. Indies, Africa, S. Europe	Scaly-ribb'd do
Nubecula	Mediterranean, Jamaica	Variegated do
Porphyrozonias	North America	Porphyry do
Macroschisma	Japan	Keyhole do

Division IV.—*Shell with the summit pointed and recurved.*

Scientific Name.	*Locality.*	*Common Name.*
Ungarica	Mediterranean, Britain	Fool's-cap Limpet
Militaris	West Indies, England	Hooked do
Antiquata	Ditto	Antiquated do
Cochleata	South Seas	White-ridged do
Calyptra	N. W. Coast of America	Helmet do
Intorta	S.Seas, W.Indies, England	Inclining do
Cassida	S. Seas, France	Lentil-seed do
Tranquebarica	Tranquebar, Batavia	Brilliant do
Mammillaris	So. Seas, Mediterranean, West Indies	Nipple do
Leucopleura	West Indies	Small-rayed do
Tricarinata	New Zealand	Three-keeled do
Pectinata	Mediterranean	Spined do
Fuseo-Lutea		Yellowish brown
Lutea	Amboyna	Yellow do
Perversa	Africa	Reverse tipp'd do
Lacustris	Lakes in Europe	Lake do
Oblonga	Rivers in Europe	Oblong do

Division V.—*Shell with a marginal fissure.*

Fissura	Britain, Algiers	Slit do
Incisa	Falkland Isles	Reticulated slit do
Fissurata	N. Zealand, Ceylon	Rose-color'd do

Division VI.—*Shell with an internal appendage at the summit.*

Equestris	E. & W. Indies, Amboyna	Cup-&-Saucer L.
Nepteni	So. Seas, St. Domingo	Neptune's Cap do
Tectum	Batavia, China	Chinese roof do
Sinensis	Britain, Mediterranean, Batavia	Chinese bonnet

Scientific Name.	*Locality.*	*Common Name.*
Auriculata ······	Batavia, W. Indies, Borneo	Ear-shap'd do ··
* Duplicata ·····	························	Double ···· do ··

Division VII.—*Shell with an internal transverse partition.*

Trochiformis ····	Falkland Isles, Tranquebar	Trochus-shap'd do
Trochoides ·····	························	Wave-ribbed do ·
Neritoidea ······	Mauritius, Indian Ocean	Chambered do ··
Porcellana ······	Indian Ocean, Goree ···	Brown spot do ··
Fornicata ·······	Mediterranean, ditto ····	Slipper ··· do ··
Aculeata ·······	Mauritius, W. Indies ····	Spiny ribbed do ·
Goreensis ·······	Goree ················	Sandal ···· do ··
Crepidula ······	Mediterranean, Barbary	Transparent white

DENTALIUM.—TOOTH OR TUSK-SHELL.

DESCRIPTION OF PLATE XXXIII.

Fam. 1. Fig. 1. D. aprinum.
Fam. 1. Fig. 2. D. striatum.
Fam. 1. Fig. 3. D. dentalis.
Fam. 1. Fig. 4. D. elephantinum.
Fam. 2. Fig. 6. D. politum.
Fam. 3. Fig. 5. D. entalis.

Shell univalve, tubular, straight, or slightly curved, with an undivided cavity open at both ends.

THE shells of this singular genus resemble an elephant's tusk in miniature. The principal distinctions are in magnitude, curvature, and the number of ribs and grooves with which some of the species are marked.

The species of the first family are distinguished by longitudinal ribs, which in the D. elephantinum generally amount to ten. The D. striatum differs from the D. elephantinum, in having eight ribs, and the interstices striated.

The D. rectum, though nearly allied to the D. elephantinum, is a straight shell, and therefore easily distinguished from it.

The next family comprehends those which are striated annularly: of these may be mentioned the D. politum, which is finely pointed, solid, and often of a rosy or pinkish color; and the D. eburneum, which is generally an inch and a half long, of a reddish or pale yellow color, with the tip frequently tinged with orange or pink.

The shells of the third family are smooth, or covered with striæ, so minute that they cannot be discovered without the aid of a magnifying glass. The D. pellucidum is very narrow and thin, and is of a pale topaz color; it is remarkable that this shell does not effervesce in acids.

The Dentalia are principally found in the Indian and European oceans; and a few in the Mediterranean and Northern seas.

The term Dentalium has been applied to this genus, from the marked resemblance which its species bear to a *tooth* (Dens).

Family 1.—*With longitudinal ribs.*

Scientific Name.	*Locality.*	*Common Name.*
Rectum	Indian Seas	Straight Tooth S.
Elephantinum	Indian & European Seas, Mauritius	Elephant's do
Aprinum	Indian Seas	White ribbed do
Striatum	Sicily, Cornwall	Striated do
Dentalis	Mediterranean, Amboyna, West of England	Curved striated do
Fasciatum	Sicily	Banded do
Imperforatum	Sandwich, Falmouth	Minute-truncated

Family 2.—*With annular striæ.*

Politum	India, Sicily	Ring-striated do
Eburneum	India	Smooth-ivory do
Trachea	Milton in Devonshire	Minute Windpipe

Family 3.—*Smooth.*

Entalis	Britain, India, Norway	Common do
Corneum	African Ocean	Horn-color'd do
Gadus	British Channel	Hake's do
Minutum	Mediterranean, Devon	Minute do
Pellucidum	North Sea	Pellucid do

SERPULA.—WORM-SHELL.

DESCRIPTION OF PLATE XXXIV.

DIV. I.—Fig. 4. S. contortuplicata.
DIV. II.—Fig. 1. S. lumbricalis.
DIV. II.—Fig. 2. S. anguina.
DIV. II.—Fig. 5. S. retorta.
DIV. III.—Fig. 3. S. aquaria.

Shell univalve, tubular, generally adhering to other substances.

THE construction of the Serpulæ is extremely irregular, and the groups they form are no less diversified. They are invariably tubular, and sometimes present themselves detached, either straight or twisted, but more frequently in clusters spirally entwined, adhering to a variety of other substances.

The colors of the Serpulæ are generally brown, purple, yellow, tawny, pink, or white, and sometimes tinged with green. Of the species which are attached to extraneous substances and form the first division, some are isolated and others collected into large masses, containing many hundred spiral and twisted tubes, curiously interwoven: the shells of the former class have their whorls nearly contiguous, and resemble some of the Helices: such are the S. spirillum and S. spirorbis. The S. vermicularis is an illustrative example of the aggregated species.

The second division has also its isolated and aggregated species; to the former belong the S. protensa and S. lumbricalis, which is a flexuous shell, with a spiral acute tip, and very much resembles a cork-screw. One of the most remarkable species is the S. anguina, which has a slit or jointed cleft along the spiral convolutions of the shell. The S. muricata has also a longitudinal fissure, and is armed with short spines or prickles; it is usually of a rosy or pink color, and sometimes has its aperture margined.

The well known but rare species the S. aquaria, forms the third division. The larger end of this shell is closed by a convex disk, with numerous small perforations, and generally a longitudinal one in the middle; the whole encircled by a dilated margin of elegant papyraceous tubes, resembling a beautifully plaited ruff or frill; the smaller end is open.

The Indian, African, American, and Northern oceans, supply many species; as also the European, Mediterranean, Adriatic, and Red seas.

Serpula is derived from *Serpo, to creep*, in reference to the vermiform character of some of the species.

Division I.—*Attached to other substances.*

Scientific Name.	*Locality.*	*Common Name.*
Spirillum	Europe	Minute-spiral S.
Triquetra	Ditto, America	Three-sided do
Intricata	Mediterranean, Britain	Intricate do
Corrugata	Devonshire	Wrinkled do
Contortuplicata	Europe, Mediterranean	Twisted do
Goreensis	Goree	Goree do
Glomerata	European Seas	Glomerated do
Conica	America, Amboyna	Conical do
Vermicularis	Britain	Round do
Tubularia	Devonshire	Tubular do

Scientific Name.	*Locality.*	*Common Name.*
Denticulata	Europe	Toothed Serpula
Ocrea	East Indian Seas	Boot-shaped do
Gigantea	Caribbee Isles	Great do

Minute Shells.

Stellaris	Greenland	Rayed pin's-head
Planorbis	Europe	Flat do
Minuta	Ditto	Minute do
Spirorbis	Ditto	Tapering do
Carinata	Ditto	Keeled do
Granulata		Grained do
Cancellata	Greenland	Grooved do
Heterostropha	Britain	Reversed do
Lucida	Ditto	Shining do
Vitrea	Greenland	Glossy do

DIVISION II.—*Detached.*

Semilunum	Britain	Small reed do
Incurvata		Incurved do
Cereolus	West Indies	Bougie do
Nebulosa	American Seas	Clouded tawny do
Lumbricalis	Amboyna	Cork-screw do
Arenaria	India	Sandy do
Afra	Goree	Smooth brown do
Volvox	E. Indies	Caterpillar do
Anguina	Ditto, China, Sicily	Serpent do
Muricata	Indian Ocean	Prickly do
Annularis		Ringed snake do
Retorta	Mediterranean	Retort-shap'd do
Cornu-copiæ	Mauritius, in stones	Cornucopia do
Decussata	Barbadoes, America	Decussated do
Proboscidea		Proboscis do
Protensa	Amboyna	Lengthened do

DIVISION III.—*With a radiated border and perforated disk.*

Aquaria	Amboyna, Red Sea	Watering-pot do

TEREDO.—Ship-Worm.

DESCRIPTION OF PLATE XXXV.

Fig. 1. Section of the T. navalis, exhibiting its chambered structure.
Fig. 2. Tubular valve of the same.
Fig. 3. The animal which inhabits the tubular part, shewing the head and terminating valves affixed to it.
Fig. 4. A valve detached from the head, illustrating its interior formation.
Fig. 5. Ditto, terminating valve.
Fig. 6. A group of the T. navalis embedded in wood.

Shell tapering, flexuous, and capable of penetrating wood.

THERE are but four species of this genus at present discovered.

The T. gigantea* is the largest species known, having been found exceeding five feet in length: it is nearly straight, and tapers towards one end, at which an interior tube is visible. It is a native of the Island of Sumatra, where it is found embedded in indurated mud. Some of the largest specimens seen in this country are said to have been thrown up by an earthquake.

The next species is the T. navalis, or common Shipworm, a very thin, cylindrical, and smooth shell, varying in length from four to eight inches; it is generally a little twisted, and rather obtuse or blunt at the tip. It has the faculty of penetrating the stoutest oaken planks of ships' sides, by means of two valves affixed to the head of the animal, resembling the Pholas; it also has two smaller valves of an ovate form, at the other extremity. The destructive effects of this little animal would frequently occasion the loss of the largest vessels, were it not from the singular fact of their generally perforating the wood in the direction of the grain.

---

* Sir E. Home has written a very scientific and interesting description of this singular shell.—See Phil. Tran. *Feb.* 13, 1806.

The T. utriculus is also cylindrical, undulated, and solid; it is usually about seven inches in length, and found in wood that has lain some time under water. It is white, subpellucid, very much bent, and gradually tapering; the aperture is ovate, divided in the middle by a partition.

The last species is the T. clava, which is found in the seminal vessels of the Xylocarpus Granatum; one end is clavate, the other incurved, narrower, obtuse, and perforated in the middle: the shell is generally flexuous, and has a brownish color; the exterior is rough, but within it is perfectly smooth. It is nearly two inches long, and about half an inch in diameter.

The generic name Τερηδὼν (Teredo) is derived from τερέω, *to bore.*

Scientific Name.	*Locality.*	*Common Name.*
Gigantea	Sumatra, Ceram	Gigantic Teredo
Navalis	Sides & bottoms of Ships	Ship do
Utriculus	Wood in the Sea	Timber do
Clava	Coromandel	Club-shap'd do

SABELLA.—Sabella.

DESCRIPTION OF PLATE XXXVI.

Fam. 1. Fig. 1. S. alveolata. *Fam.* 1. Fig. 2. S. belgica.
Fam. 1. Fig. 3. S. chrysodon.
Fig. 4. A fragment of a gigantic specimen of the preceding species.

Shell tubular, composed of particles of sand, broken shells, and vegetable substances, united to a membrane by a glutinous cement.

THE covering of the animal of this very extraordinary genus is composed of fragments and particles of different marine and vegetable productions, adhering to a tubular membrane: some are detached, and others are affixed by the base. The S. ammoniata is covered with fragments of the Cornu-Ammonis; the S. Indica, with particles of quartz; and the S. clavata, with various small stones. The S. alveolata consists of numerous parallel tubes, communicating by an aperture, forming when in mass the appearance of an honey-comb; the tubes are nearly straight, and from two to three inches long: it adheres to rocks in extensive clusters. The S. rectangula is one of the largest of the genus, and often measures nine inches in length.

The S. vegetabilis, and S. arundinacea are covered with fragments of twigs, the bark of stems, and broken pieces of the Tellina Cornea.

The greater number of the species inhabit the rivers and fresh waters of Thuringia and Belgium, and the remainder the Indian, American, Northern, and European seas.

Sabulum, whence Sabella is derived, signifies *fine* *gravel*, of which the habitations of most of the species are composed.

FAMILY 1.—*Composed of grains of sand, stones, or shells.*

Scientific Name.	*Locality.*	*Common Name.*
Scruposa	India, American Islands	White sandy S.
Scabra	America	Rough do
Alveolata	Europe	Honeycomb do
Chrysodon	European & Indian Seas	Pebble do
Belgica	European Coasts	Tubular do
Rectangula		Rectangular do
Capensis	Cape of Good Hope	Cape do
Nigra	Thuringia	Black do
Stagnalis	Ditto	River do
Conica	Jena	Conic do
Uncinata	Thuringia	Hooked do
Sabulosa	Ditto, Belgium	Gravel do
Ammoniata		Ammonites do
Helicina	Thuringia	Helix do
Dimidiata	Ditto	Divided do
Fixa	Ditto	Stony do
Clavata	Ditto	Club-shap'd do
Marsupialis		Sooty do
Norwegica	Norway	Norway do
Lumbricalis	Greenland Seas	Coarse do
Indica	Indian Ocean	Indian do

FAMILY 2.—*Composed of vegetable substances.*

Vegetabilis	Thuringia	Vegetable do
Corticalis	Ditto	Bark do
Arundinacea	Ditto	Reed do
Aculeata	Ditto	Twig do

THE END.

GLOSSARY

OF

TERMS USED IN CONCHOLOGY.

Acuminated, terminated in a sharp point.

Anterior, (in Univalves) the part which forms the spire:—(in Bivalves), see *Margin.*

Aperture, the orifice or opening of the shell; it is called *angular,* when its circumference has several angles: *bimarginated,* when the right lip forms a double margin: *coarctate,* contracted: *compressed,* flattened: *gaping,* when one of the extremities is wider than the other: *linear,* when narrow, and the length greatly exceeds the breadth: *transverse,* when the breadth is greater than the length.

Apex, the tip or small end of a shell.

Articulated, (applied to Multivalves), when the different pieces of which the shell is composed are so strongly united, that they appear to form one shell: (when applied to Bivalves), see *Teeth.*

Auriculated, having ears.

Base, (applied to Multivalves), the part on which the shell is supported: (to Univalves), the most elevated part of the shell opposite to the spire.

Beak, Beaked, having the extremity of the base of the shell elongated and contracted in the form of a beak.

Bearded, when the epidermis is of a bristly or hairy nature, (*see plate* 13. *fig.* 2.)

Bifid, forked.

Byssus, a hair-like substance formed by some of the animals of Bivalves, by which they attach themselves to extraneous bodies.

Callous, indurated.

Callus, a thick excrescence.

Canal, the prolongation of the mouth in a kind of groove or gutter, as in the Murex and Strombus.

Canaliculated, channelled or grooved.

Cardinal, see ***Teeth.***

Carinated, having the form of a boat's keel.

Cartilage, see ***Ligament.***

Cartilaginous, resembling a ligament.

Chambered, when the shell is internally divided by partitions, parallel to the aperture.

Ciliated, surrounded with parallel filaments.

Clavate, club-shaped.

Columella, that part of the shell round which the whorls turn.

Compressed, (in Bivalves), when the valves are nearly flat, or flattened.

Concamerated, see ***Chambered.***

Convolute, when the whorls turn round a lengthened cone, nearly vertical to each other.

Cordiform, heart-shaped.

Coronated, having the apex surrounded with a row of tubercles or spines.

Crenated, Crenulate, having blunt teeth.

Decollated, having the spire or upper part of the shell truncated transversely.

Decussated, intersected by striæ at acute angles.

Dentated, having teeth.

Diaphanous, transparent.

Digitated, having projecting claws.

Divaricated, obliquely striated.

Dorsal, belonging to the back.

Ears, external projections on the sides of the hinge, (*see plate* 14. *fig.* 2.)

Effuse, having the lip separated by a gutter.

Emarginate, having the margin excavated by a canal.

Epidermis, the outer skin or covering of a shell.

Equilateral, when the anterior and posterior parts of a shell are exactly similar.

Equivalve, (applied to Multivalves), when the two principal valves have the same form, size, and position: (to Bivalves), when the two valves are exactly similar.

Exserted, very thin or slender.

Fissure, a notch or slit, (*see plate* 32. *fig.* 1.)

Furrow, a gutter or groove running parallel to the hinge in Bivalves.

Fusiform, spindle-shaped.

Gaping, (in Bivalves), when the valves do not shut close: (in Univalves), when the lower part of the lips is distended.

Gibbosity, a swelling.

Gibbous, swelled.

Glabrous, smooth.

Hinge, the part where the valves are united, and generally furnished with one or more teeth: it is said to be *compressed,* when it is formed of one compressed tooth: *lateral,* when placed on one side of the shell: *reflected,* when its edges are folded over the exterior margin: *terminal,* if situated at the extremity of the shell: and *truncated,* if the beaks of the shell appear to have been transversely cut off, and the teeth of the hinge fixed to this part.

Hispid, covered with hairs, as in the Helix Hispida.

Imbricate, when the surface is covered with scales partially covering each other.

Imperforate, having no umbilicus.

Inequilateral, when the anterior and posterior parts of the shell are dissimilar.

Inequivalve, when the valves are dissimilar.

Involute, without a spire, as in the Patellæ.

Keeled, see *Carinated.*

Labium, see *Lip.*

Lenticular, when the valves are round, and diminish in thickness from the centre towards the edges.

Lid, see *Operculum.*

Ligament, a membranous substance which connects the valves: it is both interior and exterior in the generality of Bivalves.

Linear, when the length of the shell is greater than its breadth, and its form not cylindrical.

Linguiform, tongue-shaped.

Lip, (in Univalves), the sides of the aperture: (in Bivalves), the exterior edge of the valves.

Lunar or *Lunate,* having a crescent form.

Margin, the edge of the shell: *anterior,* the space in which the ligament is situated: *posterior,* the space on the other side of the hinge: *superior,* the space between the anterior and posterior parts.

Marginate, (in Univalves), having the sides of the shell thickened: (in Bivalves), surrounded with an elevated margin.

Mouth, see *Aperture.*

Muscular Impressions, are the marks made by the muscles with which the animal adheres to the shell, as in the Common Oyster.

Obovate, nearly oval.

Obsolete, obliterated.

Obtuse, blunt pointed.

Operculum, (in Multivalves), the stellular valves which shut up the superior orifice: (in Univalves), the part which exactly fits into the aperture and encloses the animal.

Orbicular, forming an entire circle.

Papillary, having the apex rounded.

Papyraceous, of the thinness of paper.

Patulous, gaping.

Pectinated, when the longitudinal ribs on the anterior surface form acute angles with the transverse striæ.

Peduncle, a tendinous substance belonging to some of the Multivalves, by means of which they adhere to solid bodies.

Pillar, see *Columella.*

Pillar-lip, that side of the aperture in which the columella is situated.

Pisiform, pea-like.

Plaited, when the columella is toothed, as in Volutes.

Posterior, see *Margin.*

Reticulated, like net-work.

Retuse, when the lower whorls are pressed into the body.

Rostrum, see *Beak.*

Rugose, wrinkled.

Scabrous, rough.

Serrated, toothed like a saw.

Semilunar, like a half-moon.

Sessile, low, dwarf.

Sinuous, waved.

Sinus, a deep cut, as in the lip of the Murex Babylonius.

Slope, the side from the beaks.

Spinous, having prickles or thorns.

Spire, is formed by the whole of the upper whorls.

Striæ, lines, flat or slightly raised: they are called *longitudinal,* when they run from hinge to margin: *transverse,* when in a contrary direction: and *concentric,* when they form segments of circles.

Subcordate, approaching the form of a heart.

Subpellucid, not quite clear.

Subulate, tapering.

Superior, see *Margin.*

Suture, a toothed joint.

Syphon, a prolonged tube running through the partitions of chambered shells.

Teeth, (in Univalves), angular plaits, as on the pillar lip of Volutes: (in Bivalves), pointed protuberances within the hinge, by which the valves are united. They are called: *alternate,* when the teeth of one valve are received between the teeth of the other valve: *articulated,* when the tooth is received into a corresponding cavity in the opposite valve: *cardinal,* the central tooth or teeth of the hinge: *compressed,* when flattened: *erect,* perpendicular to the plane of the hinge: *forked,* having the point divided into two: *longitudinal,* when it extends along the margin.

Tubercle, a protuberance or knob.

Tuberculated, having elevations resembling warts.

Tubular, (applied to Multivalves), when the greater part of the shell is cylindrical.

Turbinated, when the belly of the shell is large in proportion to the spire, which seems to proceed from the centre.

Valves, the different pieces which compose the shell.
Varix, Varices, longitudinal elevations or ribs, formed by the junction of the different additions the shell has received.
Ventricose, bellied.
Vermiform, having the form of worms.
Vertex, the top or point of a shell.

Umbilicated, having a hole in the base of the pillar.
Umbo, the summit.
Undulated, waved.

Whorl, a spiral convolution.

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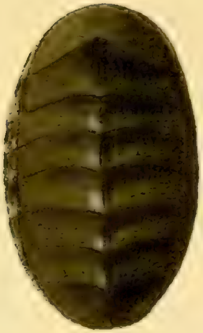
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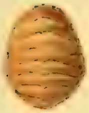
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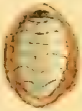
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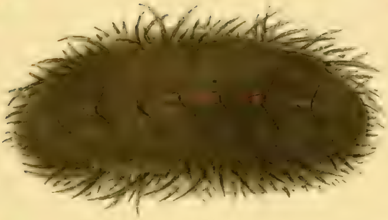
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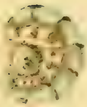
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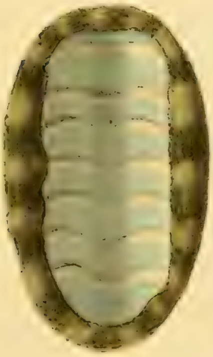
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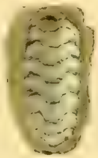
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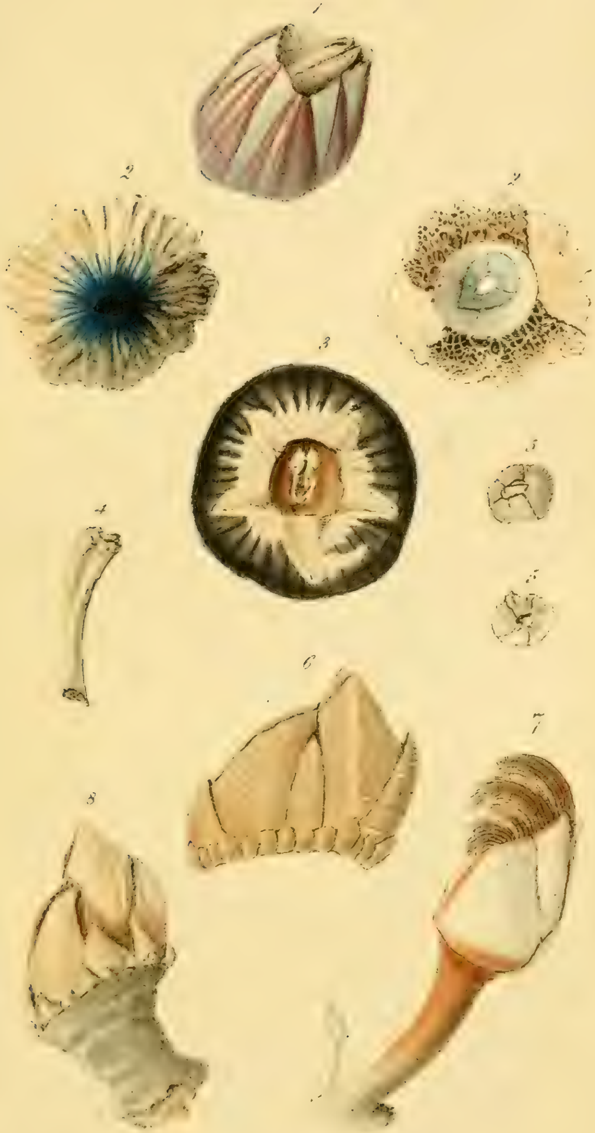
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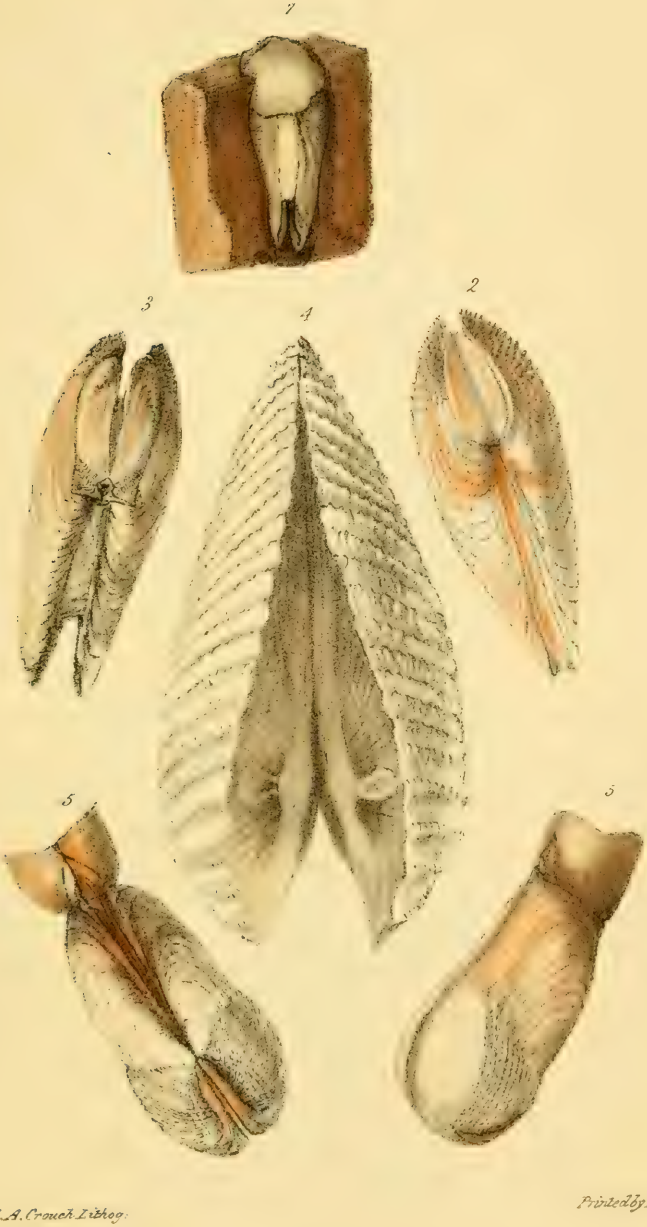

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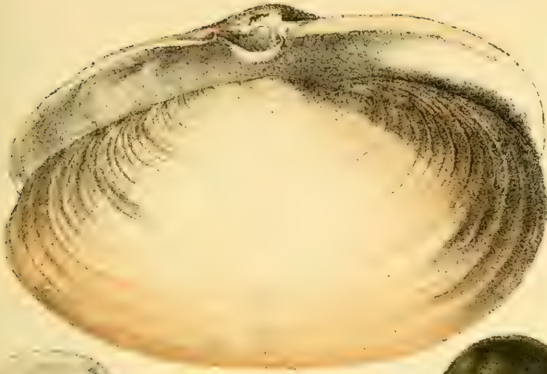

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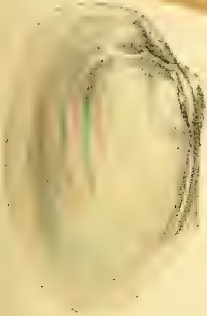

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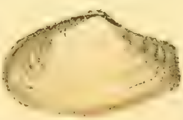

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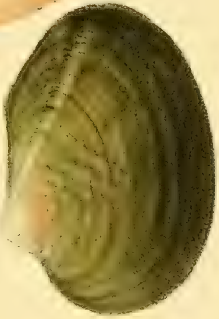

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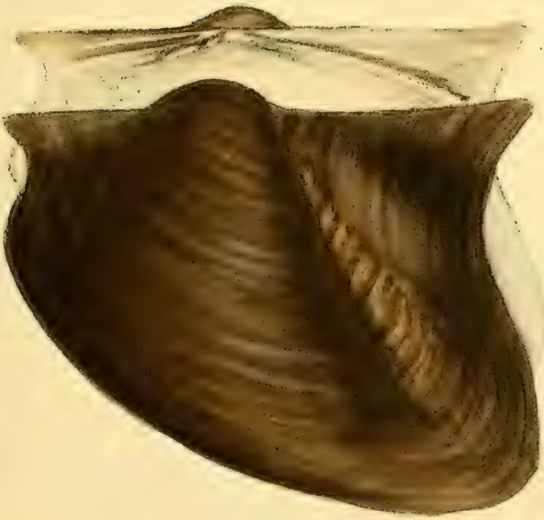

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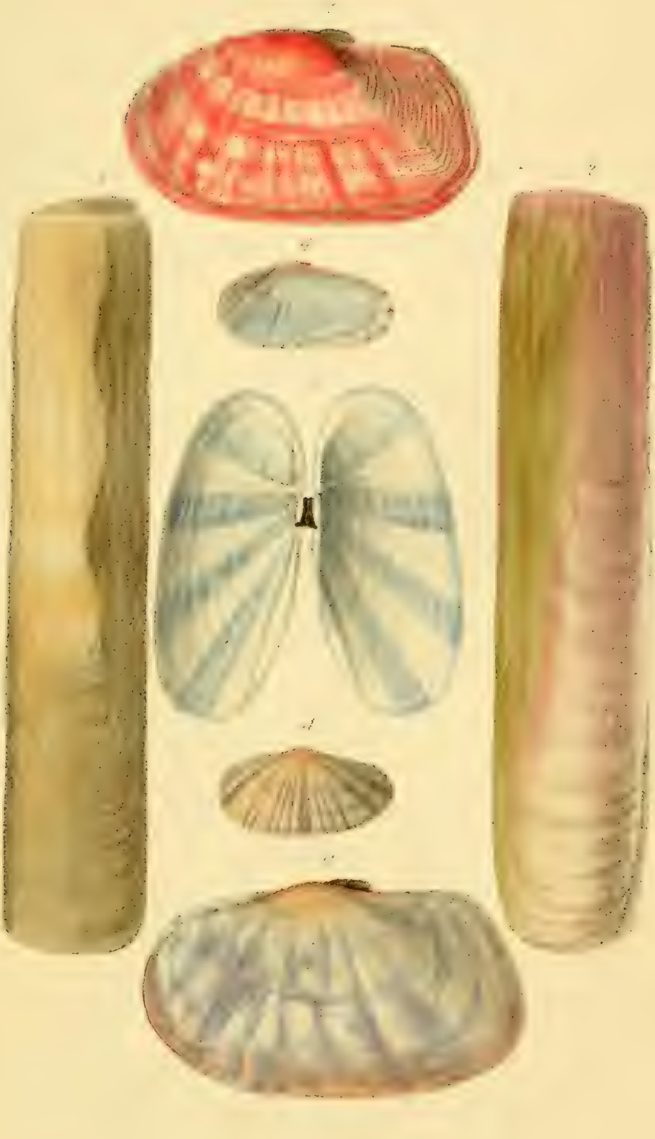

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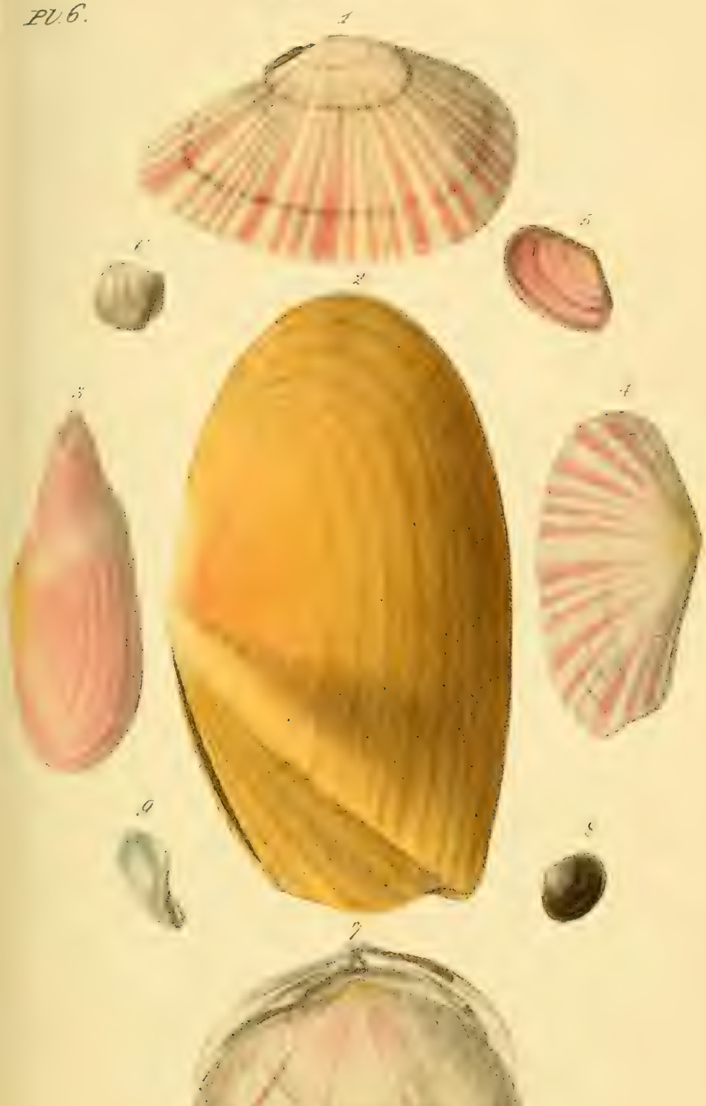

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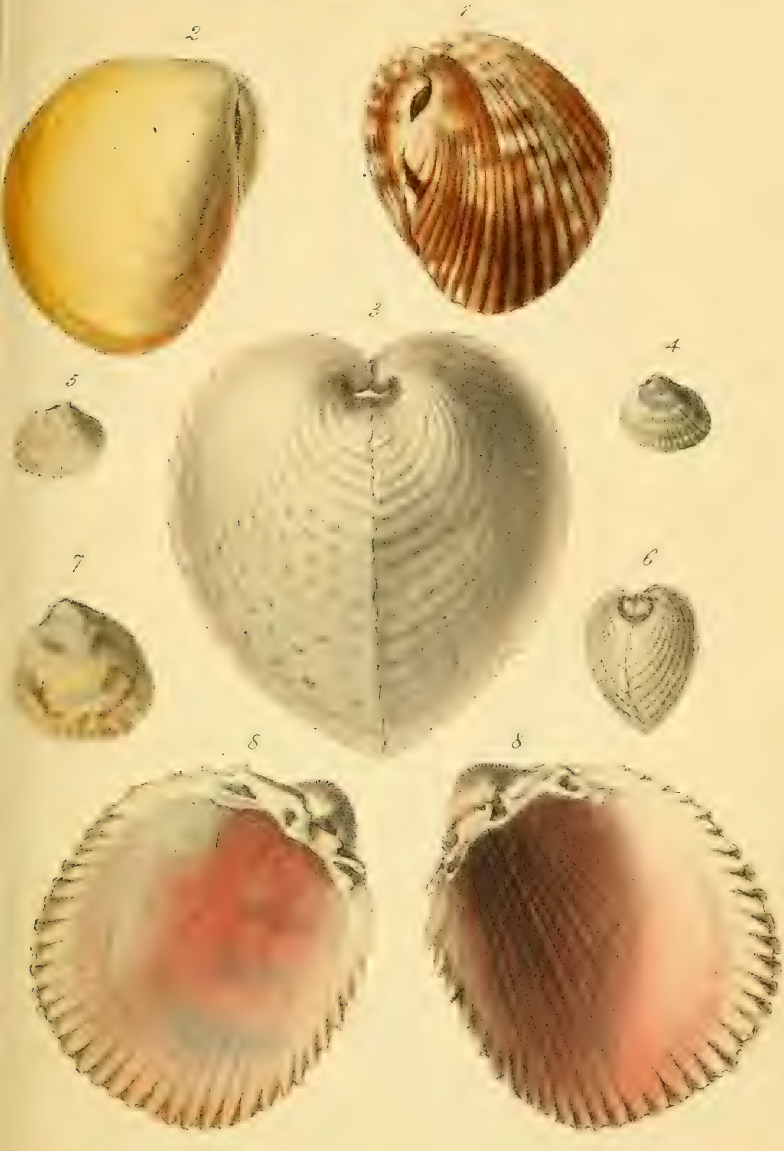

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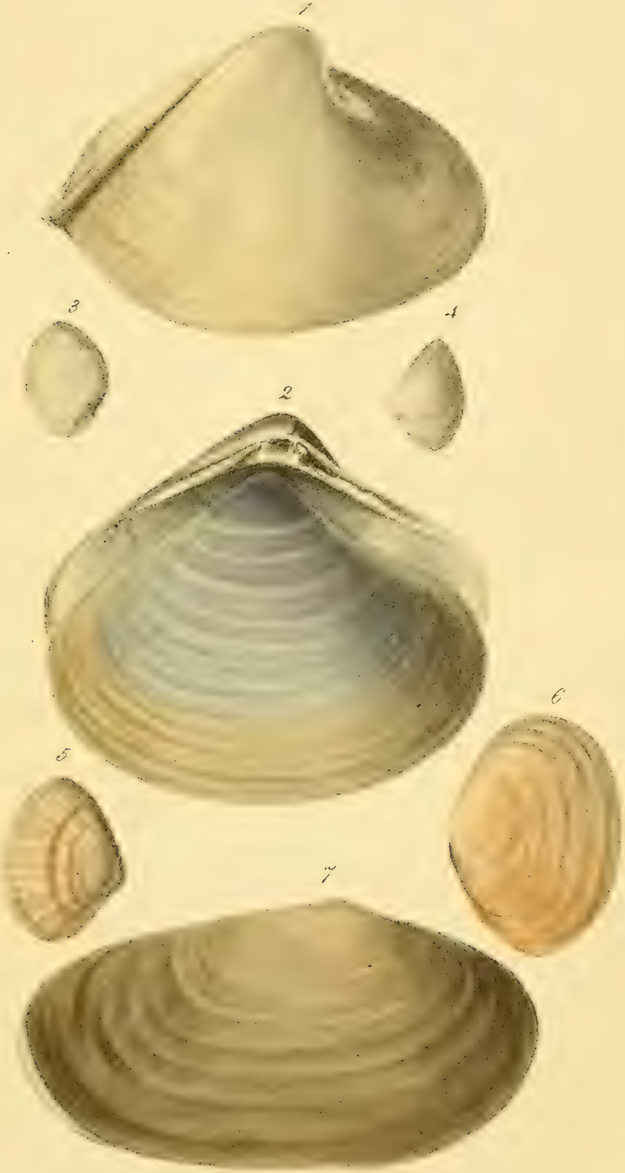

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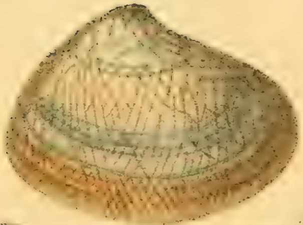
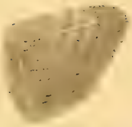
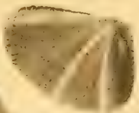
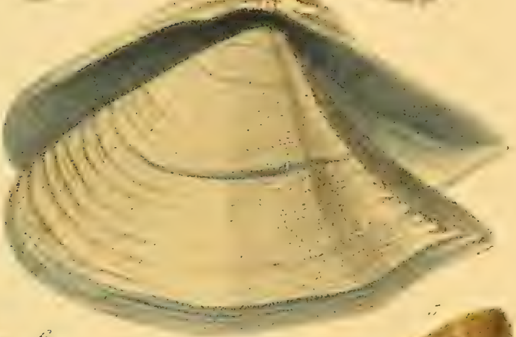
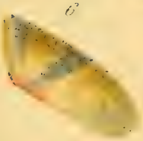
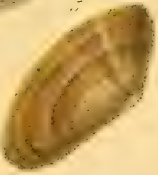


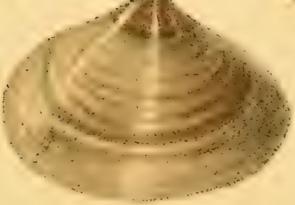












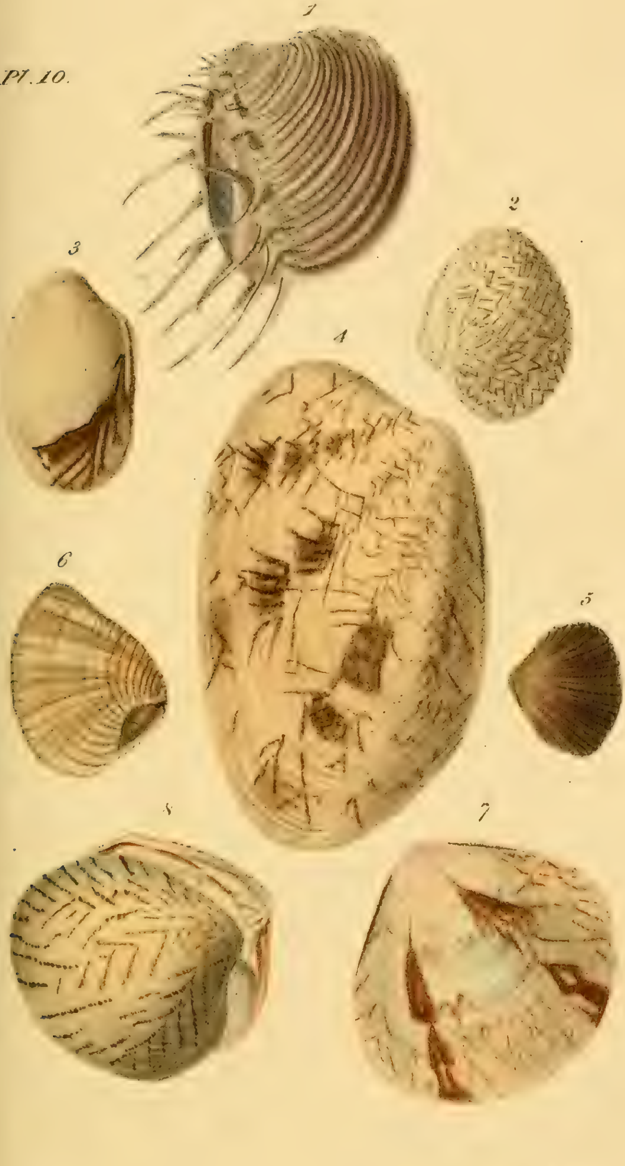
.Crouch Lithog:

Printed by Rowney & Forster.

By J. MAWE 149 Strand.

VENUS.

Pl. 10.

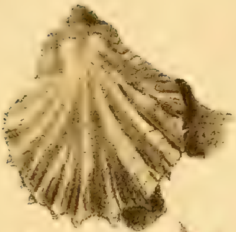


E. A. Crane Lithog. Printed by Rowney & Forster.

By J. MAWE, 149 Strand.

SPONDYLUS.

Pl. 11.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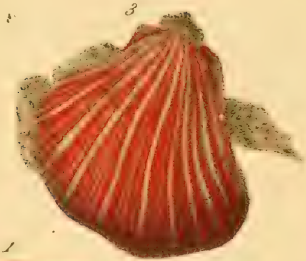
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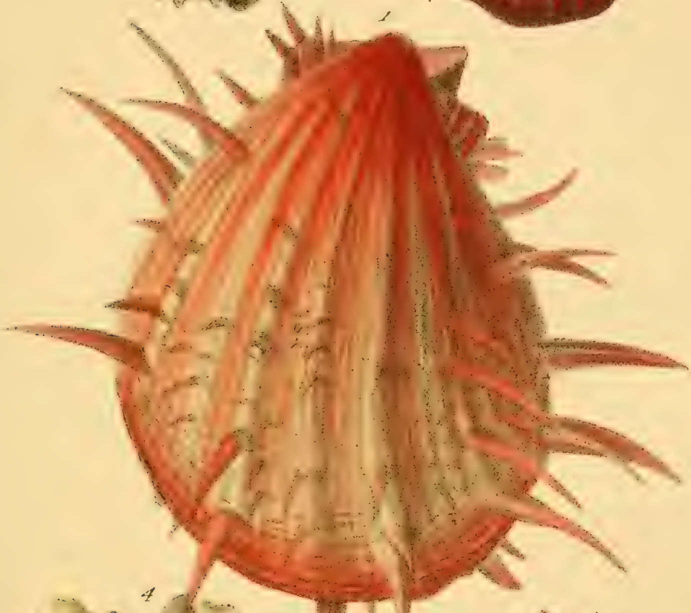
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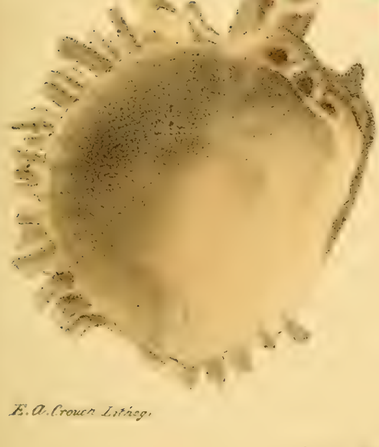
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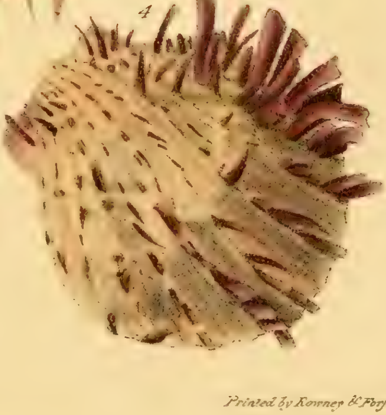
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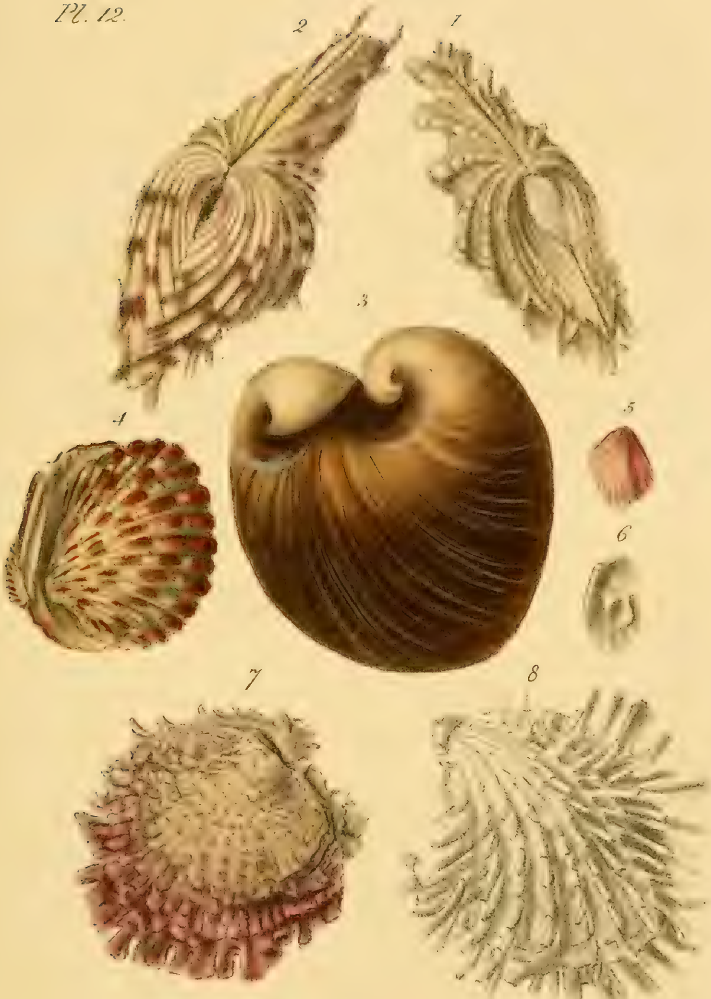
By J. MAWE 149 Strand.

CHAMA.

Pl. 12.



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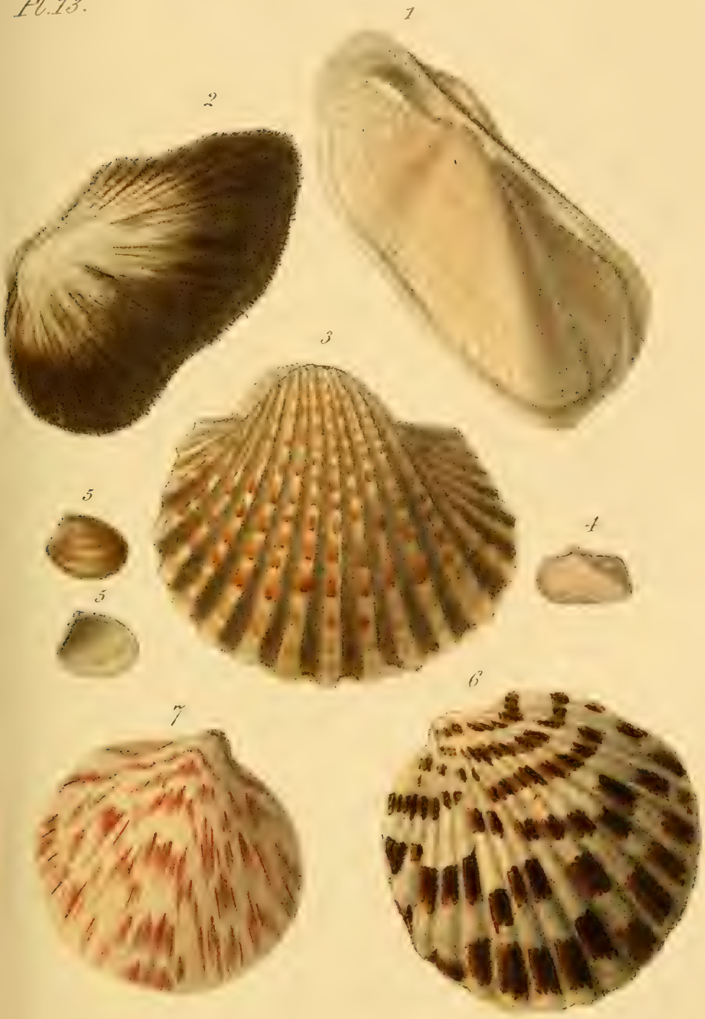
By J. MAWE, 149 Strand.

ARCA.

Pl.13.



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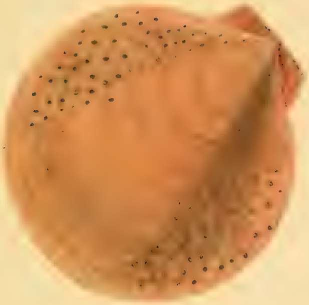
OSTREA.

Pl. 14.

1



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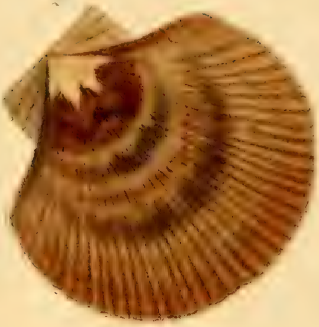

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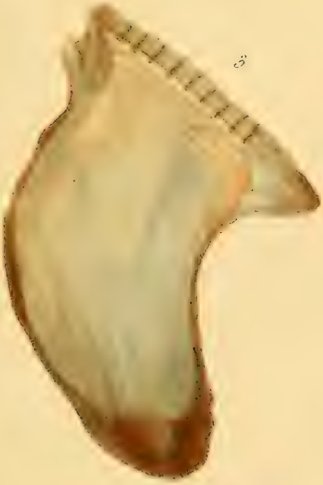

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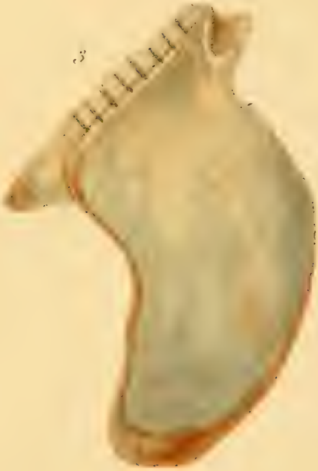

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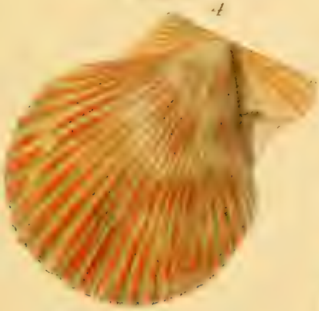

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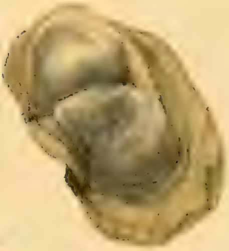

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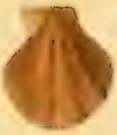

E. A. Crouch Lithog.

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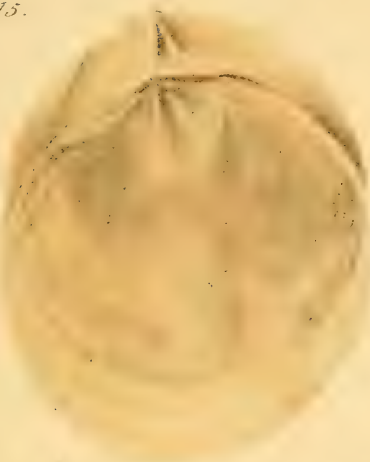
ANOMIA.

Pl 15.

1



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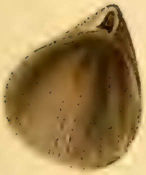

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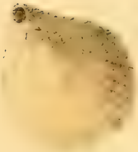

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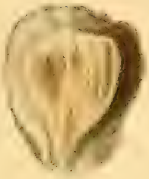

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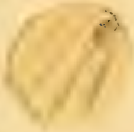

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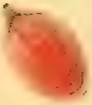

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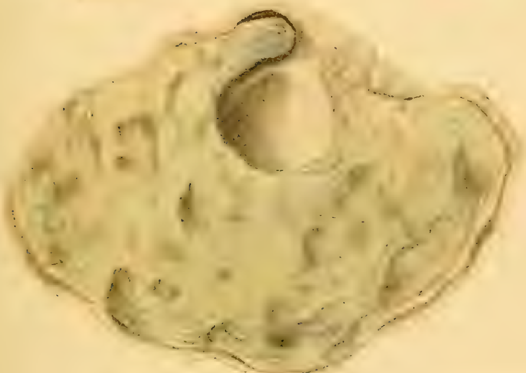

E. A. Crouch Lithog:

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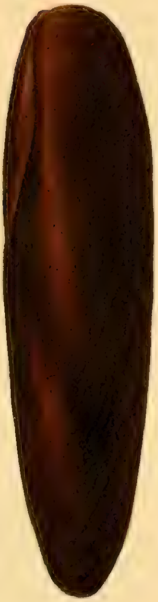
MYTILUS.

Pl. 16.

1



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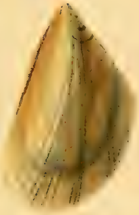

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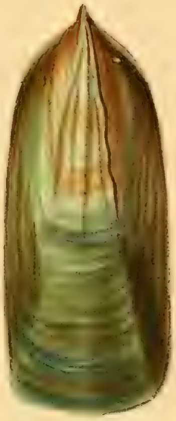

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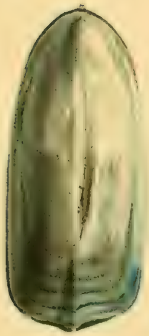

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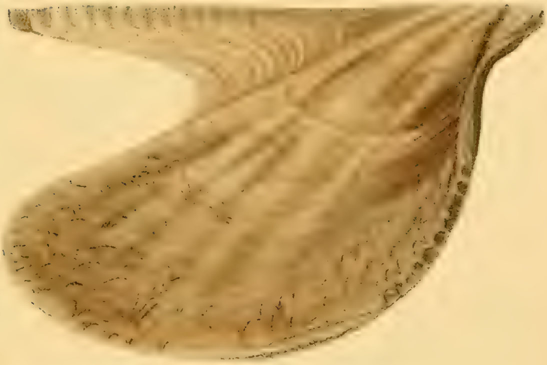

E. A. Crouch Lithog.

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PINNA.

Pl. 17.

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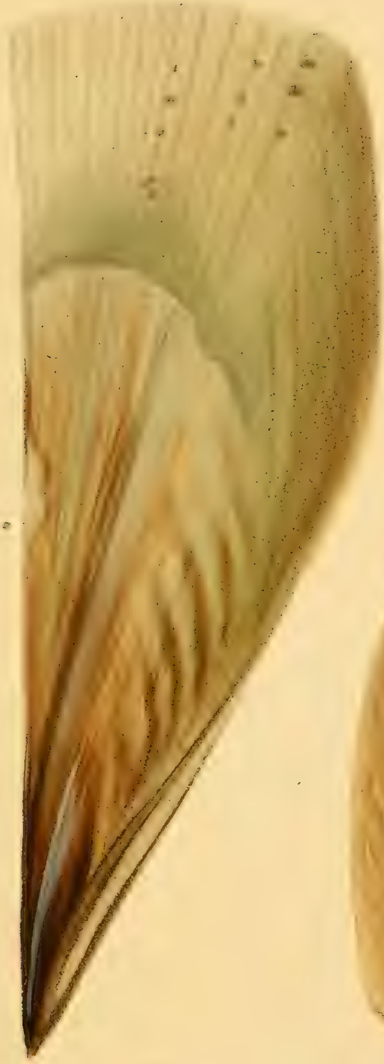

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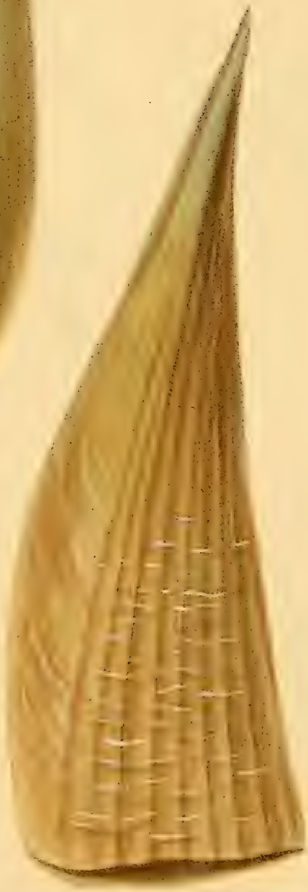

E. A. Crouch Lithog:

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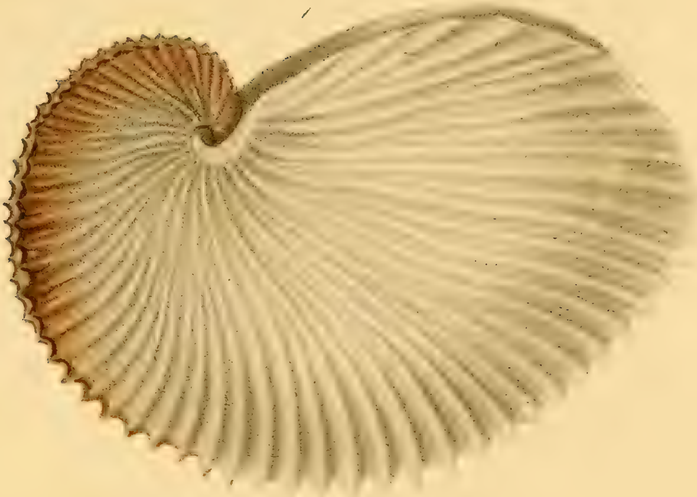
ARGONAUTA.

Pl. 15.

1



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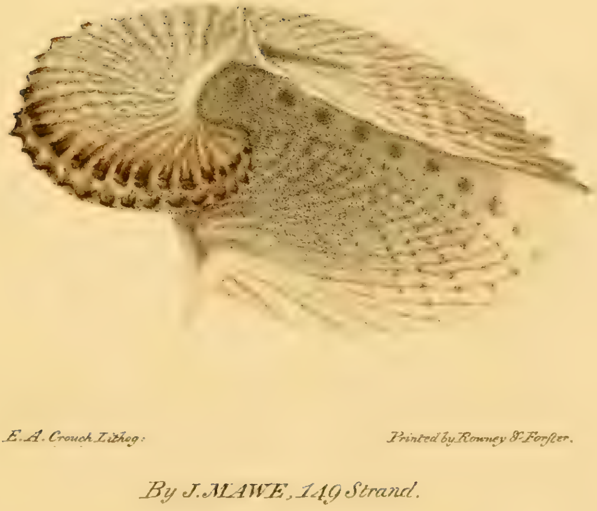

E. A. Crouch Lithog:

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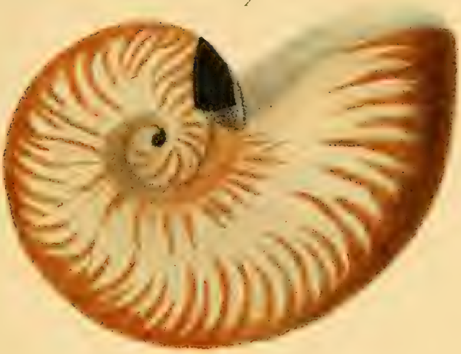
NAUTILUS

Pl. 19.

1



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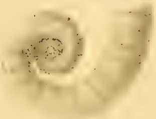

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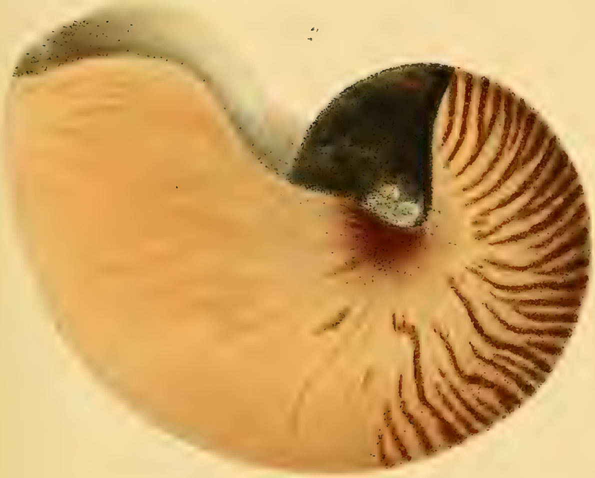

E. A. Crouch Lithog.

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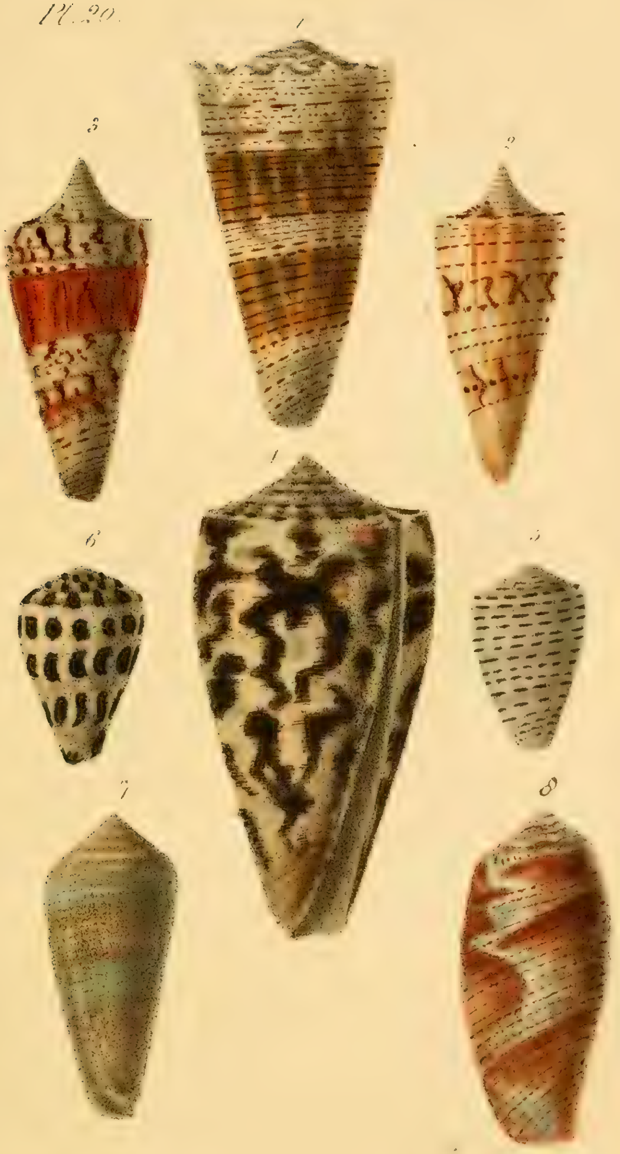
CONUS.

Pl. 20.



I. Crouch Lithog.

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CYPRÆA

Pl. 21.

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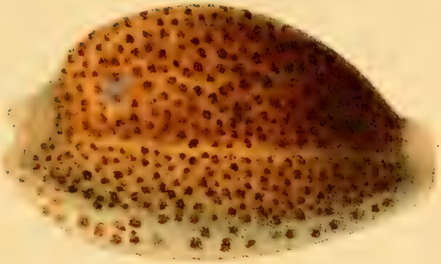

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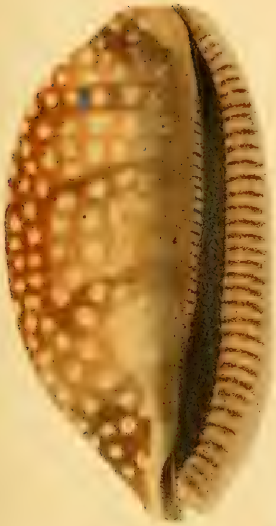

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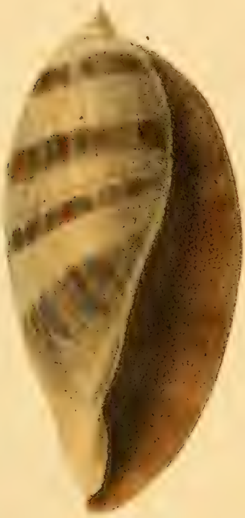

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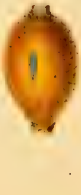

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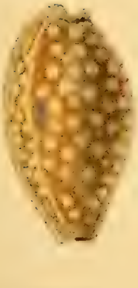

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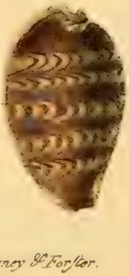

E. A. Crouch Lithog: Printed by Rowney & Forster.

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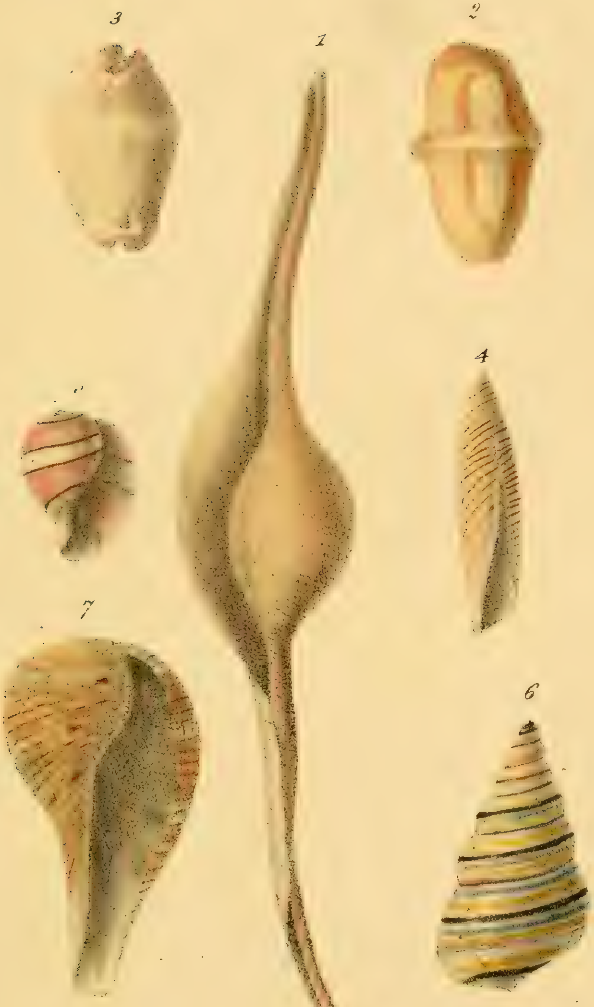
BULLA

Pl. 22.

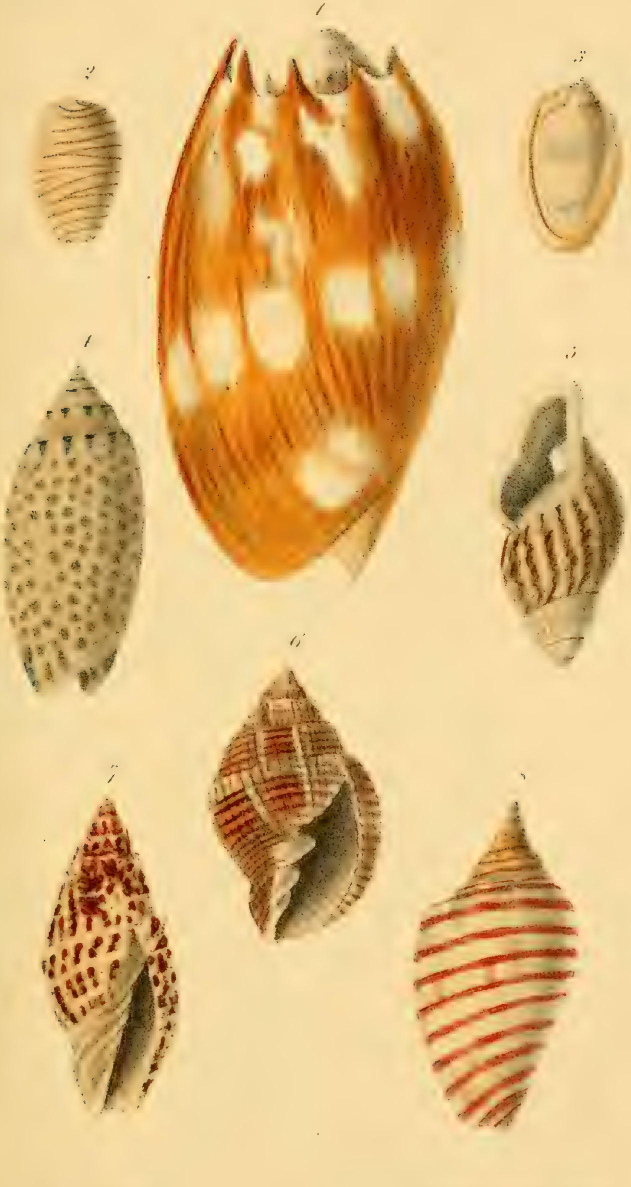


E. A. Crouch Lithog.
Printed by Rowney & Forster

By J. MAWE, 149 Strand.

VOLUTA.

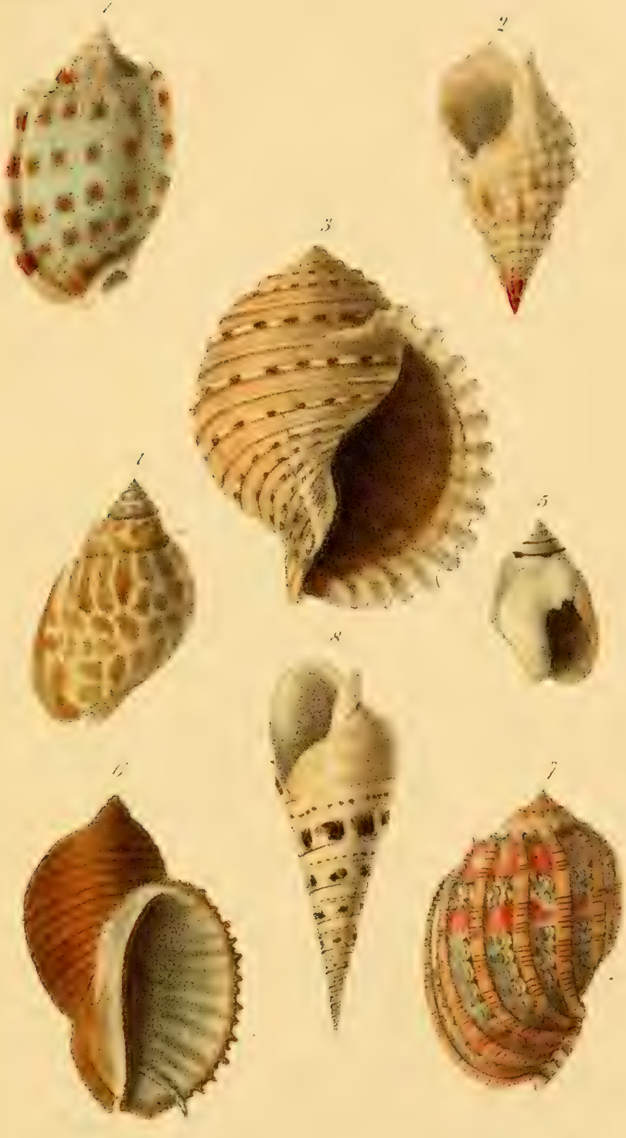
Pl 23



E.A. Crouch Lithog: Printed by Rowney & Forster
By J. MAWE 149 Strand.

BUCCINUM.

Pl 24.

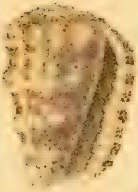


E. Crouch Lithog
Printed by Rowney & Forster
By J. MAWE 149 Strand.

STROMBUS.

Pl. 25.

1



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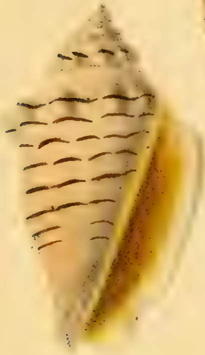

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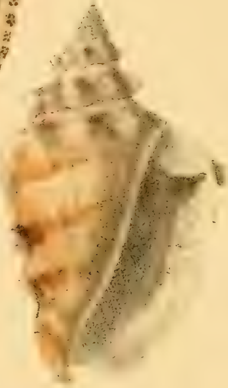

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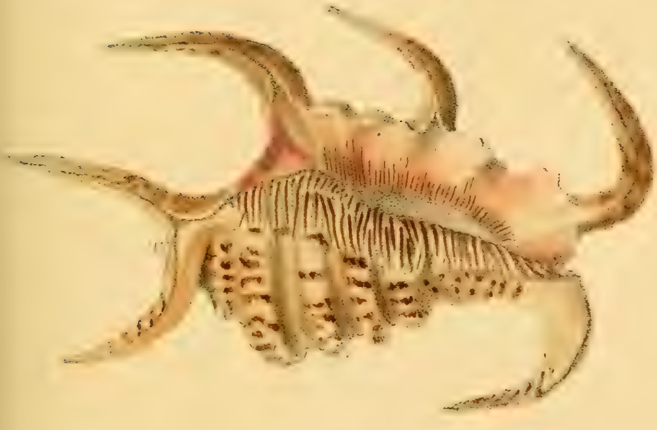

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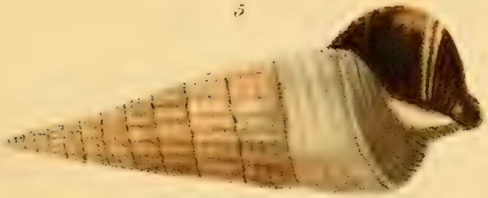

E. G. Crouch Lithog.

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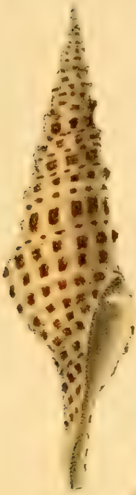
By J. MAWE, 149 Strand.

MUREX.

Pl. 26.

1



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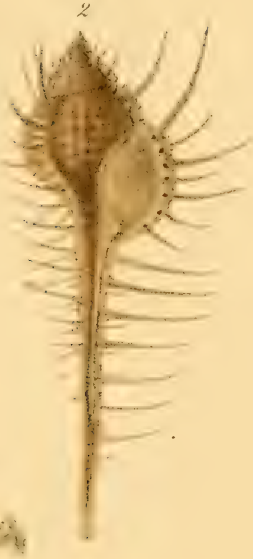

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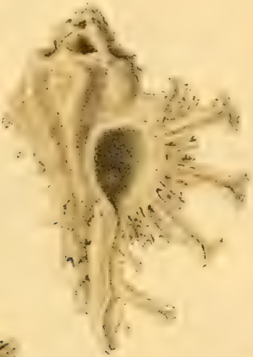

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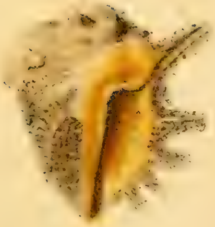

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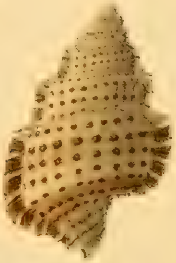

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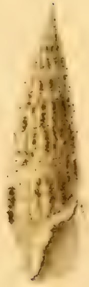

E. A. Crouch. Lithog.

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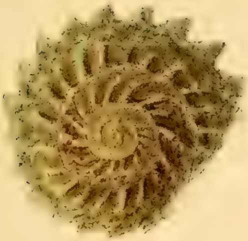
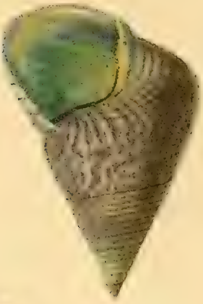
By J. MAWE, 149 Strand.

TROCHUS.

Pl. 27.

1





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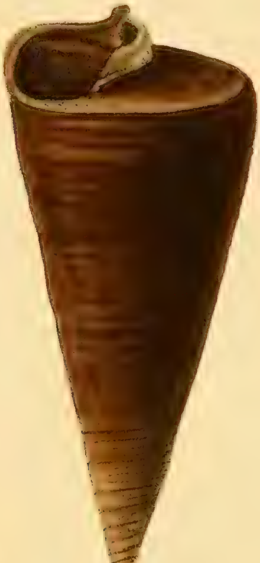

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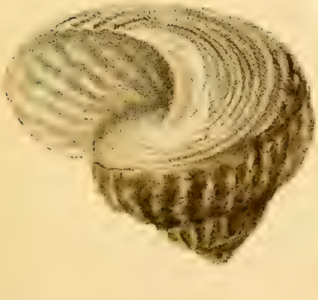

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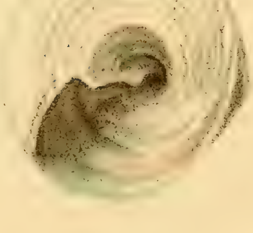

E. A. Crouch Lithog

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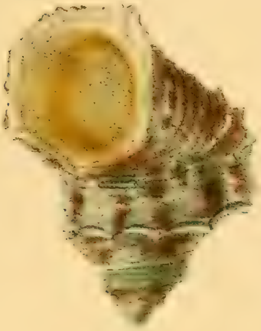
By J. MAWE, 149 Strand.

TURBO.

Pl. 28.

1



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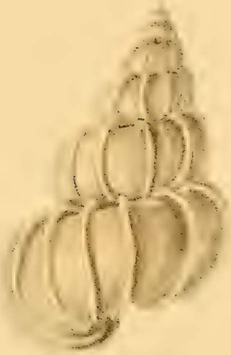

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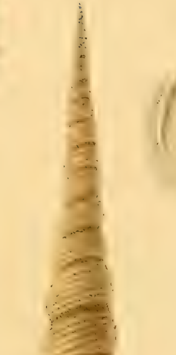

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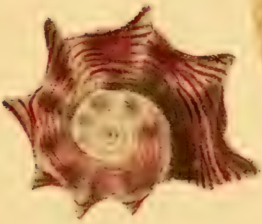

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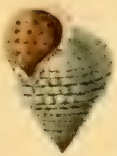

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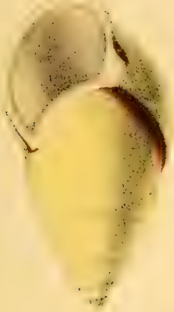
HELIX.

Pl. 29.

1



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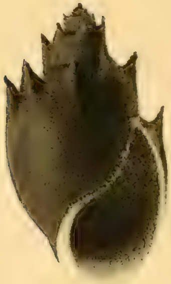

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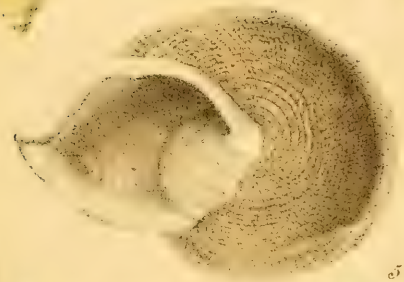

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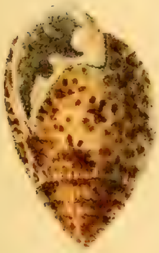

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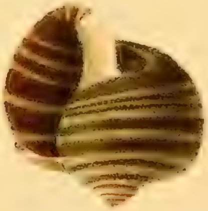

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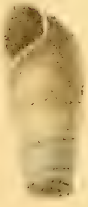

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NERITA.

Pl. 30.

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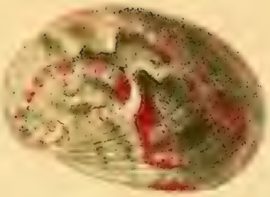

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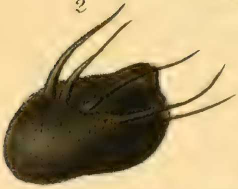

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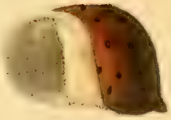

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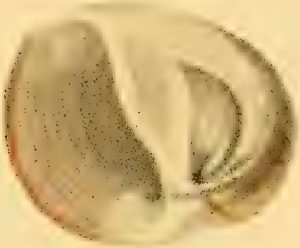

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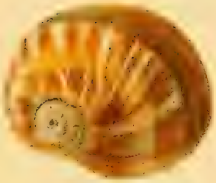

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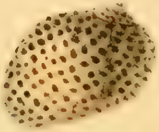

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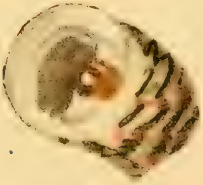

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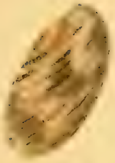
HALIOTIS.

Pl. 31.

1



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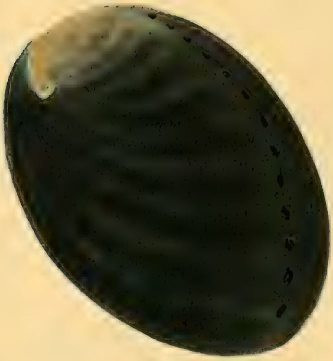

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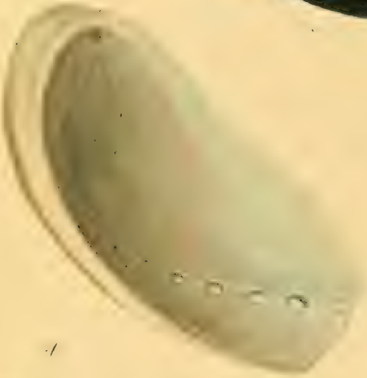

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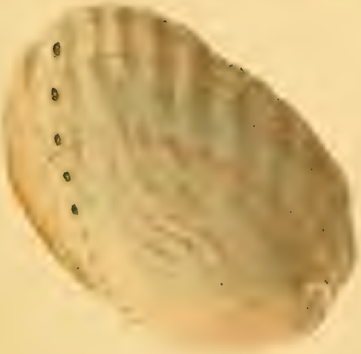

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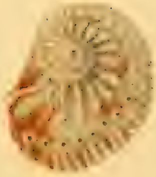

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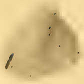
PATELLA.

Pl. 32.

1



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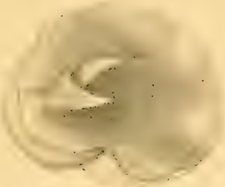

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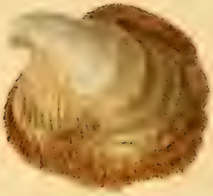

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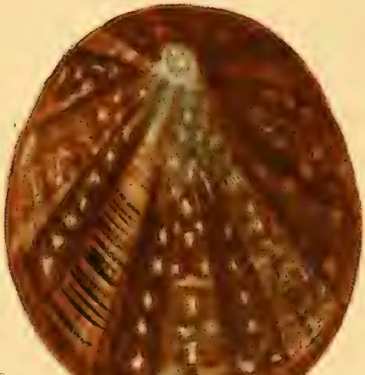

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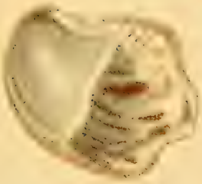

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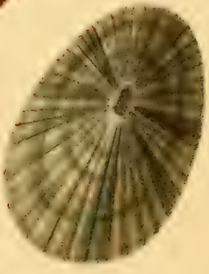

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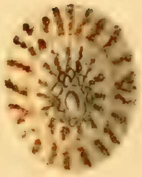

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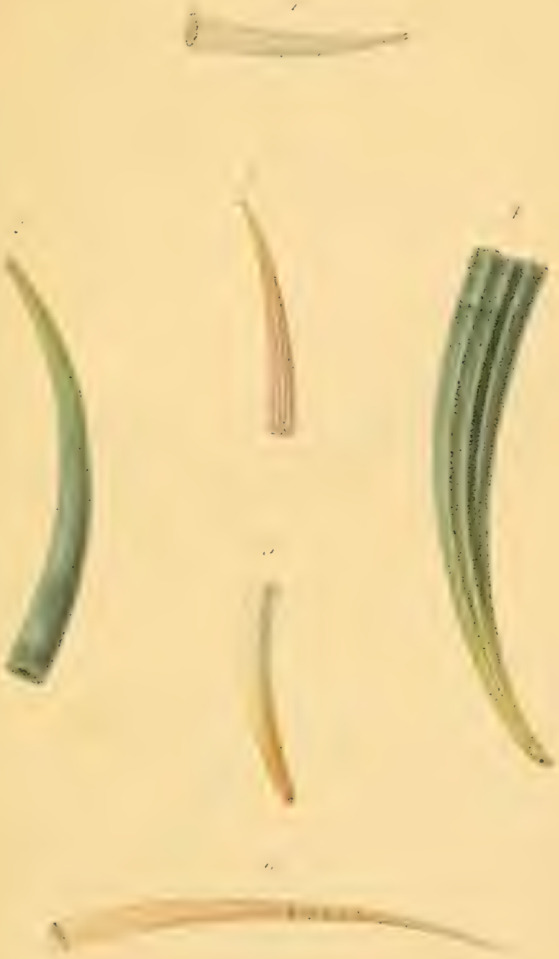
DENTALIUM.

Pl. 33



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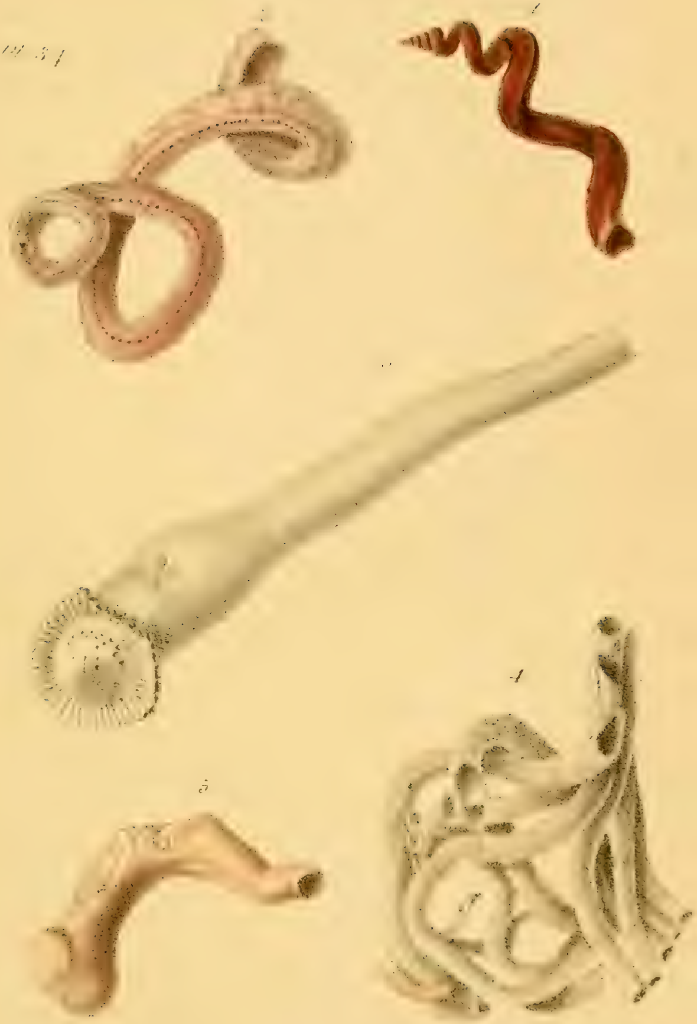
SERPULA.

Pl. 31



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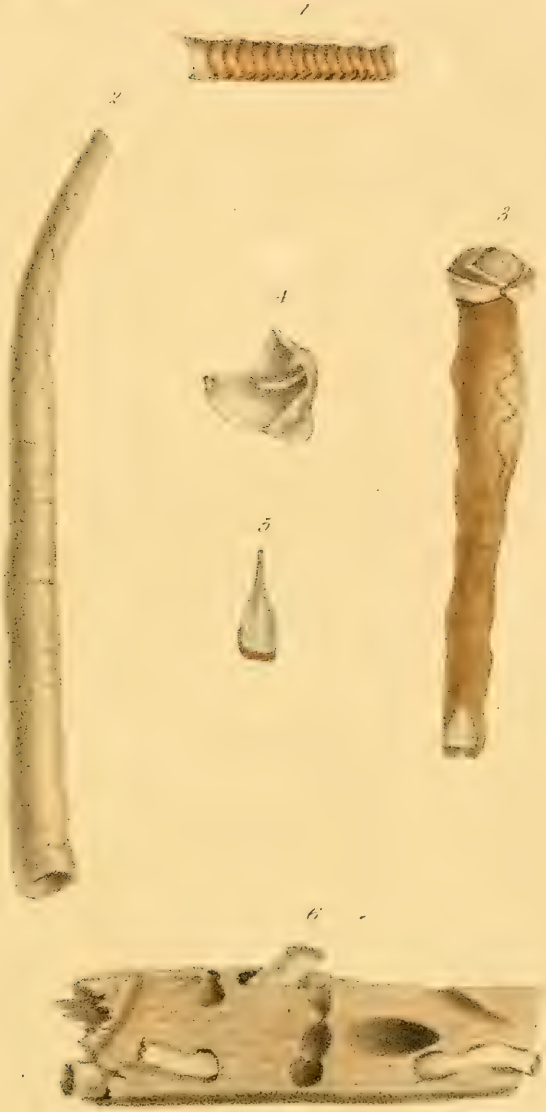
TEREDO.

Pl 35.



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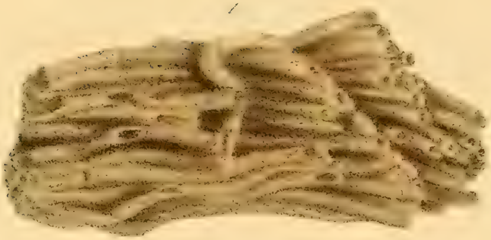
SABELLA.

Pl. 36.

1



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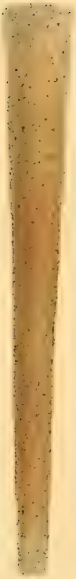

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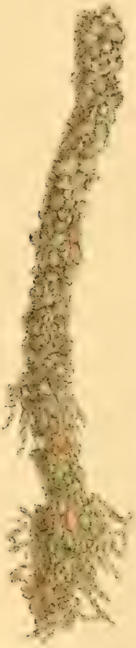

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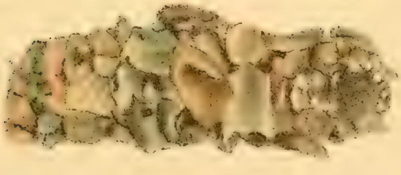

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